



TEA
HINTS
FOR RETAILERS

By
JOHN H. BLAKE



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MAP SHOWING THE TEA DISTRICTS OF CHINA.

TEA HINTS
FOR
RETAILERS

IN TWO PARTS

Illustrated

By JOHN H. BLAKE

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INTRODUCTORY.

In the regular routine of his ordinary daily business the retail merchant is frequently called upon to face trade-problems that are difficult to solve satisfactorily; problems upon the enigmatical nature of which no light from the outside may be shed; problems that, in their outcome, may affect the money making capacity of a business for better or for worse, and of which a hap-hazard or hasty solution may be dangerous.

It is not every retail dealer who is sufficiently well versed in the finer details of his particular trade as to be able to direct every business procedure into the correct channel, and so it oftentimes happens that words of advice, from those who have had the opportunity to become experienced in certain directions, are well received.

Although tea is one of the most important items in the retail grocer's stock, and one of the few articles remaining to him upon which a really good profit may be made, it is, nevertheless, unfortunately true that few grocers can claim to have a comprehensive knowledge of the flavory leaf; a knowledge such as the importance of the commodity as a trade-winner and as a profit-maker would warrant. There are, undoubtedly, many reasons for this almost general inconversance with the subject, but it would appear that a lack of means whereby a greater knowledge might be gained is responsible beyond other reasons.

It is very possible, therefore, that there are many who desire to become more familiar with teas, and with the various tea-problems that confront the average dealer in his

capacity of buyer and seller, and it is to these, and to these only, that this book has been respectfully addressed.

In preparing and publishing the following pages the writer has made no attempt to qualify as an authority or as an author. His chief end and aim has been to give to the inexperienced retail dealer in teas ideas and information that will prove to be of value and of benefit in a business way. These ideas have been gathered during an experience of more than twenty years of active service in exclusively wholesale tea-circles, and, such as they are, it is sincerely hoped that they will be of as much worth as it is intended that they shall be.

It is possible that exceptions may be taken, by those opposedly interested, to many statements and suggestions contained within the covers of this book, but, inasmuch as all has been written in a spirit of fairness; of absolute truthfulness, without fear or favor, and for the retailer's especial benefit, the writer is content to allow those for whom it has been written to be his judges.

It is believed, however, that the many hundreds of retail grocers who know the writer personally, or have known him by reputation during his career on the road, as manager and as tea-man, will appreciate this effort to benefit them, however faulty it may be, and it is sincerely hoped that those who do not know him will find as much pleasure and profit in the perusal of these pages as will be derived, it is confidently expected, by those who do know him.

Denver, August 10th, 1902.

PART I.



HISTORY, CULTIVATION,
MANUFACTURE.

CHAPTER I.

THE TEA GARDENS OF THE WORLD.

Prior to the sixth decade of the late nineteenth century the world's production of tea, with a few altogether unimportant exceptions, was confined to that yielded by the ancient gardens of China and Japan.

Since the year 1864, however, several British possessions; viz:—India, Ceylon, The Straits Settlements, Natal, and the Fiji Islands have been added to the list of tea-producing countries, and these, with Java, Formosa, Brazil, The United States of America, and a few other countries of minor note, as yet, as tea-producers, constitute the present tea-gardens of the world.

CHINA.

Notwithstanding the fact that China, the long-lived Empire, has ever been recognized as the ancient home of tea-cultivation, and that her peoples have always been looked upon as the originators of the leaf-preservative methods which, in principle, are followed by all of the tea-producing countries of the world today, there are authorities who offer excellent and healthy reasons for the advancement of the theory that India, and not China, is the original home of the tea-plant itself.

On the other hand there are authorities who are unwilling to admit the claim of any country other than China for the honor of being the original home of the plant, and these authorities base their opinion upon the fact that the several varieties or species of the Chinese tea-plant are distinctive,

and unlike the plant found growing elsewhere, although it is admitted that the claim of others for India, as the original home, has some foundation in fact.

In the year 1826 a tree, which was subsequently proved to be the tea-tree, or, at least, a species of the general order to which the tea-tree belongs, was discovered growing wild, apparently, in the jungle-forests of Upper Assam, and along the valley of the Brahmaputra River in the north-eastern corner of British India; a country which was overrun and conquered, in the eighteenth century, by the warlike people of the adjoining country, Burmah. According to an authoritative statement this country was thickly populated in the eighteenth century; was civilized in a measure; and the lands were in a state of excellent cultivation. The incursions of the victorious Burmese, however, completely devastated the thriving communities and drove the peoples out, and, at the present day, these lands, which were once the seats of civilization and of agricultural activity, are covered with impenetrable jungle-forests. In these forests the tea-tree was discovered, and the theory is that it was once cultivated on the lands upon which it was discovered, but has degenerated and become wild as the result of a subsequent lack of cultivation. It is further stated, in support of the theory, that the tea-plant, in a real state of nature, is, more than likely, to be found in the primeval forests, as yet unexplored, of the Indo-Chinese borderland, and that seeds were originally conveyed from these Indian border-lands to China, and there subjected to a careful husbandry; a husbandry of centuries which would account for the difference in the appearance and size of the leaves of the plants of India and China.

Be this as it may, however—for it still remains an open question—it is undoubtedly true that a knowledge of the virtues of the tea-leaf, as well as a method of preserving it from one season to the other, was given to the outside world by the

people of China, so that, if the plant itself cannot be traced to an origin on Chinese soil, the discovery of the usefulness of its leaves, by the Chinese, can.

For four thousand years the people of China are said to have known of the tea-plant; to have cultivated it, and to have infused its leaves in like manner as is done by them today.

However this may be—for the discovery and early history of the shrub and its uses are enshrouded in the darkness of Chinese tradition, legend, and folk-lore—sufficient truth has been culled from more recent Chinese writings to prove, beyond a reasonable doubt, that the cultivation of the tea-plant for its leaves has been systematically carried on as a national industry in China for a period of, at least, one thousand years.

In the Flowery Kingdom tea-drinking has been a national custom for many centuries. The tea-cup is in evidence at all times, and is available at every social function throughout the Empire, whether in the home of the prince, the mandarin, or the peasant. A Chinese author tells us that “the chief rulers, dukes, and nobility esteem it; the lower people, the poor and beggarly, will not be destitute of it; all use it daily and like it.”

It is, therefore, not at all surprising that a custom so popular in its original home; that a beverage so beneficial to the human race should, eventually, find its way to other countries, and that the cultivation of the plant should be undertaken in other parts of the globe where soil and climatic conditions would permit.

China being the home of tea-leaf cultivation and preparation, it naturally follows that all subsequent tea-growing countries received their seeds and their knowledge from the Chinese. Not only did they receive these, but with them came to the civilized and semi-civilized worlds the names by which the plant and the infusion of its leaves are known.

Cha—pronounced *tscha*—is the spoken name for both tea and its infusion in the greater part of the Chinese Empire. The Japanese and Portuguese also speak it *cha*, and the Russians use the word *tschai*. The Anglo-Saxon word *tea*, the French *thé*, the German and Dutch *thee*, the Danish *the*, the Spanish *té*, and the Italian *tè* are all derived from the dialect of the Chinese Province of Fu-Kien, where it is called *tai* and *ta*. The first shipments of tea to European countries, except to Russia and Portugal, it is said, were made from the Chinese sea-ports of Amoy and Foo-chow, and, as these cities are in the above named province, it is more than likely that the Fu-Kienese pronunciation of the word found its way with the tea-chests to Europe, and so created a name for the product akin to the Chinese name of that province. Japan and Russia evidently obtained their spoken words for the product from Chinese dialects of other provinces; while Portugal undoubtedly absorbed the term in use by the Japanese during the early commercial relations which existed between the two countries.

The seventeenth century—A. D. 1664—saw the introduction of China tea to the western civilization of Europe, where, although introduced by Westerners themselves, the beverage was received with prejudice and some hostility. For many years after its introduction this prejudice and ignorance, or both, stayed the destined onward march of the generous beverage, for it was not until the beginning of the eighteenth century that the nations of Europe and America began to appreciate the Chinese drink and to fall into line as habitual consumers of the infusion. The Anglo-Saxon race, wherever located, has been since its introduction, is today, and, it is more than likely, always will be the greatest Western consumer of tea as a beverage. This race was educated in its use during the early years of the eighteenth century by the trade-seeking merchants of the parent country, whose ships searched the far corners of the earth for outlets for her manufactures,

and brought the products of the nations to the home-country in exchange.

In spite of a heavy import duty, which was levied at that time by the British Government, the tea-importations of Great Britain and her Colonies increased quite rapidly, fostered by the commercial instincts of the then powerful English East India Company, and by the increasing desire of the British public for the Chinese beverage. British emigrants to the American Colonies brought with them their fondness for the infusion, and today the descendants of these emigrants, notwithstanding the fact that an iniquitous tea-tax hastened a separation of the two countries, are as fond of "the cup that cheers but not inebriates" as were their forefathers.

"The waters in the rebel bay
Have kept the tea-leaf savor,
Our old North-Enders in their spray
Still taste a Hyson flavor;
And Freedom's tea-cup still o'erflows
With ever fresh libations,
To cheat of slumber all her foes
And cheer the awakening nations."

—*Holmes.*

For over one hundred and fifty years China supplied the outside world with tea, and, during this period, enjoyed an undisturbed monopoly of the world's markets, for it was not until the middle of the nineteenth century, when the sea-ports of Japan were unlocked to foreign commerce, and, a little later, when the tea-gardens of India and Ceylon commenced to thrive, that her enormous trade with the Anglo-Saxon peoples began to decline. Since the date of the awakening of Japan in 1853-54 to the present time, China has been compelled to share the trade of the United States with that wide-

awake Empire, while British-Indian enterprise has been the means of reducing her trade with Great Britain to less than ten per cent. of that country's annual consumption; and it appears to be quite likely that these progressive tea-producing nations will continue to make inroads into her foreign trade unless she awakens and undertakes to teach the world that there is, in reality, no tea equal to that of her old-time make.

For many years past, and in spite of a very heavy increase in the world's consumption of tea, China's export trade has suffered exceedingly. In British markets, where the consumption is now said to be in the neighborhood of 300 million lbs. annually, the imports of China teas in 1901 amounted, in round numbers, to 15 million lbs., whereas, in 1886, China supplied these same markets with about 150 million lbs., and in 1882 with about 211 million lbs. In 1901, according to statistics, the United States imported about 30 million lbs. of China teas; against about 54 million lbs. in 1900, and, according to other statistics, the monetary value of the exports of teas to the United States from the Chinese port of Shanghai, from whence the greater portion of China teas is shipped, decreased in 1901 to about one and a half million dollars from about three and a half million dollars in 1900. Concerning this enormous decrease the American Consul at Shanghai writes as follows:

"The decrease in the exports from China is undoubtedly accounted for by the disturbed political conditions in the north of China, especially Manchuria, and by the floods in the Yangtze Valley. The decrease in tea-exports, however, can only be accounted for by the increasing carelessness of preparation;" and, in this last sentence, the Consul undoubtedly strikes the key-note of the present Chinese tea-situation in so far, at least, as the United States is concerned.

Time was when the teas of China were in general use the world over, and they were, for the most part, of good value

and pure. Of late years the deterioration of many of her best known district teas, and the adulteration of some, as well as the artificial coloring or "facing" of others, has been painfully apparent; so much so, indeed, that it has been the means of causing much speculation in tea-circles as to the future of China's export trade.

That the Chinese tea-farmer is a past master in the science of leaf-production, and that he, and his co-worker, the manufacturer, are more than capable of producing, between them, a tea that is, beyond question, the world's very finest, no one that is at all familiar with the subject will care to deny, but, unfortunately, the Chinaman is nothing if not the pink of stubborn conservativeness, the very essence of supercilious egotism, and to this national characteristic the *continued* lack of quality is attributable, although it is extremely doubtful if the Chinaman can be blamed as the originator of the policy which was instrumental in lowering his tea-qualities. The causes which led up to, and are still the means of maintaining this unfortunate state of affairs are to be looked for, and found, outside of China.

In the first place the introduction, and extensive advertising, of British machine-made teas had the effect of reducing prices to such an extent that American and particularly British consumers were unwilling, and, consequently, the retailers and importers were unable, to pay the prices which the Chinaman reasonably demanded for his superior product, and he, accommodating man that he is, undertook to lower his qualities so that he could give to the white man an even value for the prices he wished to pay. In the second place the steady decline in prices has forced the producers to accept a corresponding decrease in their percentage of profits, while, at the same time, there has been no reduction in the specific export duties and "likin" exacted by the Chinese local and general Governments. As a result the producer finds that, in

proportion to the decrease in profits, the taxation has increased until it has become a grievous burden.

In order to meet the requirements of his white clients and to withstand the ever increasing burden of tribute to his Government, the Chinaman has been forced to reduce the cost of production in some way, and he has done it by a reduction in his cost of labor; hence a lesser care in picking, a greater haste in manufacture, and a faultier preparation of the leaf for ocean transportation. And the obliging Oriental was even willing to go further than this for the especial benefit of the white man. Some of the lowered qualities did not come up to the standard of excellence in point of style; did not look so well to the eye as before; so a little Prussian blue and some native clay worked through the leaf during the process of manufacture gave a brighter and better appearance to the product, and the white man was satisfied.

In accommodating the exacting foreigner, however, John Chinaman has been guilty of a grave self-injury, for the effect has been very serious in so far as his reputation and export trade are concerned; whereas had he resolved to stand manfully by his guns and allow the great superiority of his product to fight his battle, consumers all the world over, after having satisfied themselves that the teas of other countries were unequal, would have forced the retailers, and they the importers, to come to his terms and purchase his teas. Unfortunately vast numbers of tea-consumers know nothing of China's old time reliable teas, and the few that do remember them are, most likely, of the belief that China can no longer produce them, so that the demand for, and the supply of, inferior qualities continues to decrease, and it would appear to be only a question of time before China teas will disappear entirely before the increased consumption of the better advertised product of newer countries.

The danger which confronts China's export tea-trade

as a result of the present policy has been presented to the grower-manufacturers in all its seriousness, and strong efforts have been made to induce them to produce only the better class teas and so force their foreign customers to take what they have to sell or none at all, but, for reasons of their own, they refuse. The European and American exporters of Foo-chow, Shanghai, Hankow and other treaty ports of China, whose export tea-trade has suffered exceedingly as a result, are entirely without recourse and at the mercy of the native producers. For years they have been forced to witness a steady decrease in trade and have striven to rectify the matter in every conceivable manner both at home and abroad. They have argued the case with the producers, have protested and even threatened, but all to no purpose. The assistance of enlightened Chinese merchants, who are equally well aware of the ultimate result of such a suicidal policy, has been enlisted and gladly given, but the growers and manufacturers of the interior, notwithstanding the fact that they can see an annual diminution in the volume of their foreign trade, remain doggedly impassive to the gravity of the situation and absolutely refuse to change their present methods. But they are reasoning human beings, these tea-manufacturing Chinamen, and have, without doubt, considered the problem from the standpoint of their own immediate interests. In doing so it is easily conceivable that they realize the danger to the future of their foreign trade which their present policy involves, and it is more than possible that they realize also that they, as producers, stand, so to speak, between two fires.

On the one hand they have the demands of the foreign importer to consider, who, in order to satisfy, in turn, the insatiable demand of the retailer for a colossal profit, and that of the consumer for a cheap article, insists upon having a quality and a price that will satisfy both; while, on the other hand, should they, the Chinese producers, yield to the impor-

tunities of exporters and others, who desire to see China teas brought up again to the old-time standard of quality irrespective of cost, and make teas as they used to make them, is it not very possible that an immediate market of consequence would be hard to find at the higher costs? "We are perfectly willing to make teas of our old-time superior quality for the Russians," one can readily imagine them protesting, "for they are always willing to pay our reasonable prices; but the barbarous foreign devil who insists upon having the very cheapest he can get, and knows no better than to like bluestone and gypsum on his tea,—well—anything is good enough for such as he"—and, under the circumstances, the Chinese producer would be more than justified were he to reason in just such a way as this.

The remedy for the present evils, in so far as Chinese qualities in America are concerned, is entirely in the hands of the American retailer, who, should he insist upon purchasing and selling to consumers high-grade China teas in place of the low-grade, trashy, and oftentimes injurious leaf he is now handling, can aid the cause of healthful teas; and the Chinese producer, were he sure of his market, would be more than willing to supply, upon demand, teas from which the most healthful, invigorating, and pleasing drink can be made; a drink from leaf that no country, other than China, has, so far, been able to equal.

In British markets the cause of China teas appears to be doomed. To the average Briton strength, thickness, and blackness of liquor appeal more urgently than fineness, aroma, and flavor; and this, added to the fact that he raises his own tea—and John Bull is nothing if not patriotic—will, unless a general revulsion in popular taste takes place, cause an ever decreasing demand for the light-bodied, flavory product of China.

In this connection, and from a British standpoint, it may be interesting to quote Mr. Henry Norman's remarks upon China's loss of British trade. He says in his "The Far East," 1895, "Improvement in quality is an absolute necessity, but, as the Commissioner of Customs says, '*China can never hope to produce a tea which will compare with Indian according to the only standard which now seems to be applicable in England; the standard of strength; the capacity to color to a certain point of darkness so many gallons of water to each pound of tea.*' It seems unlikely that the Chinese will learn to improve their qualities as that we shall learn how to know good tea from bad, and how to make it when we have secured it." "To every Eastern tea-drinker," Mr. Norman continues, "the tea served at the best houses in England would be a horror. Nobody who has not traveled in the East and arrived, after a day's tramp through a malarious and steaming jungle, at some poor Chinaman's shanty, and thankfully drunk a dozen cups of the beverage, freely offered, can know how delicious and invigorating even the most modest tea can be."

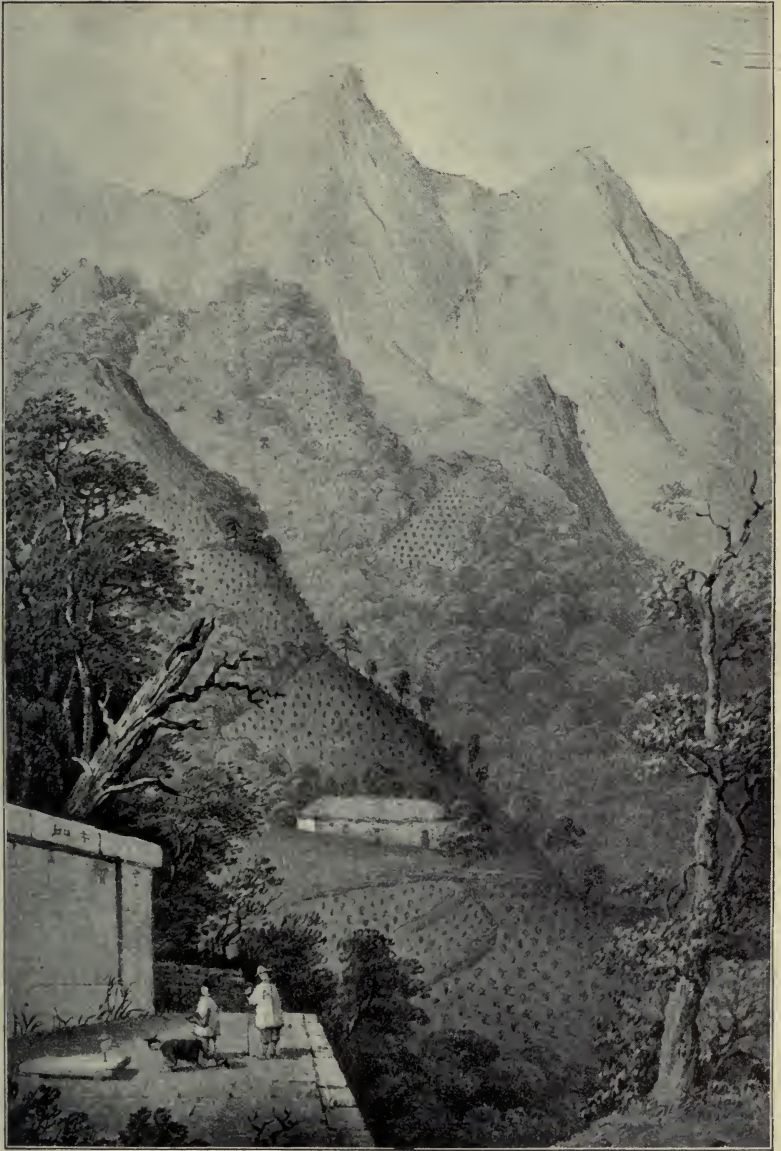
With the beginning of the decline of China's trade with the peoples of the Anglo-Saxon race, there came a demand for her teas from the Russian Empire which was, in a great measure, destined to offset the loss.

The tea-trade of China with Russia has existed for over two hundred years, but, within the last two or three decades, this trade has increased enormously, reaching latterly, according to a recent statement of the Dutch Consul at Warsaw, the huge total of fifty-three million kilogs. a year. A kilog. equals 2.21 lbs., avoirdupois, so that China's present tea-trade with the White Czar's Empire is, in round figures, equal to 117 million lbs. annually. This includes the very finest leaf produced, as well as the coarser varieties made into bricks which are intended for the consumption of Siberians, the poorer classes of Russians, and Russian Asiatics.

The best teas required for consumption in Russia—for the Russian is very particular about the quality of his tea—are manufactured and packed with exceeding care, and are now sent by steamer to the Black Sea port of Odessa, while the coarser varieties, after having been powdered and compressed into tablet and brick form—known commercially as “Tablet-” and “Brick-Tea”—are despatched overland by means of camel caravans. Brick-tea, although sent by caravan, is not what is known as “Russian Caravan Tea,” for the latter is an extremely high-grade, specially prepared black tea, which the Russians carry overland by camel caravan in order to prevent the deterioration consequent upon a long ocean voyage.

In spite of the gigantic inroads which India, Ceylon, and Japan have made in her export trade, China continues to be, by far, the world's largest producer of the tea-leaf, and she is likely to occupy that position for all time, so long, at least, as her enormous native population continues to confine itself to tea as a national beverage. The competition of other tea-producing countries may cause her to still further hurt her export trade by inducing the production of an inferior, or of an adulterated leaf in order to meet the lowering prices which extreme competition is likely to bring about, but even the loss of all her foreign trade would be little felt by her farmer-growers with such a home market as is hers; a market which supplies a tea-consuming population estimated to be in the neighborhood of four hundred million souls.

The year 1902 has witnessed a large increase in the importations of China teas by the United States. It is quite likely, however, that the unnatural conditions which existed during the latter part of the year, and caused by the expectations of an increased business after the abolition of the war tax on teas on December 31st, 1902, have had much to do



A TEA PLANTATION IN CHINA.

with this increase, for it cannot be said that any part of it is due to an improvement in quality.

According to the Bureau of Statistics of the United States Treasury Department the importations of China teas for the last three years were as follows:

In 1900.....	54,111,195 lbs.
In 1901.....	30,352,239 lbs.
In 1902.....	60,837,270 lbs.

Tea-plantations in China are, in most part, unworthy of the name, for they are rarely more than little patches of the shrub, cared for by small farmers, who raise and cultivate the plants, pick and partially cure the leaves, and, in this condition, sell them to the traveling factors or "tea-men" who are sent out, for the purpose of purchasing the leaf, by the "hong," or tea-factory owners of the local interior cities. Upon arrival at the hong the collective product of the district, thus gathered together, is fully prepared for market and is stored to await the orders of the brokers who represent the hong in the great sales-mart to which the district is tributary. This system is quite similar to the one in vogue in our own wheat-producing states. The wheat-broker or buyer visits the farms of a district; bargains with the farmers; sends the collective purchase to the elevator company, from whose bins it is, in due season, shipped to the flouring mills.

The Chinese tiller of the soil occupies an unique position among his fellow men. However small his farm may be, he is still a farmer, and, as such, he is highly esteemed and his occupation honored throughout the land. He is looked upon as being the real producer and, in consequence, his work is considered to be much more meritorious than that of the mechanic and more honorable than that of the merchant who merely handles the product for profit and distributes it to consumers. From time immemorial emperors and nobles have

paid homage to the husbandry of the land and, at a certain season each year, it is customary for the reigning monarch, aided by his nobles, to pay tribute to the husbandman's craft by taking plow in hand, running a few furrows and sowing some seed.

Tea-farms in China, although mostly very small, vary in size as well as in ownership. The owner of from three to five acres of land is looked upon as being beyond the fear of ordinary need, while the owner of ten acres or more is considered to be in extremely comfortable circumstances. The entire farm of many Chinese tea-growers is quite frequently of such small extent that it would hardly suffice to make an ordinary house-orchard for a prosperous American farmer. Upon this little patch, however, John Chinaman grows his crop of tea-leaves and, in addition, manages to raise a sufficiency of garden-truck upon which to support his family. In many cases the land is rented from the district mandarin, or other owner, whose rent must be paid out of the proceeds of the product, but so very closely is every foot of soil worked, so carefully are individual plants tended, and so economical is the farmer and his family in every way that he manages to eke out a fair living withal, and his lot is not, altogether, an unhappy one.

Each tea-farm is cultivated by the farmer, assisted by his family, and extreme care is usually exercised in all that pertains to the production of a good, cleanly leaf. In cases where the farmer has no family and is too poor, as frequently happens, to employ labor to harvest his crop, he sells it, as it stands upon the bushes, to the factor, who undertakes the task of picking, semi-preparing, and shipping.

The small tea-garden patches are usually situated upon sloping ground at the foot of hills where a natural drainage is obtainable, such drainage being essential in a climate which is subject to an exceedingly heavy rainfall.

"A plantation of tea," says Mr. Fortune, "when seen at a distance, looks like a little shrubbery of evergreens. As the traveler threads his way amongst the rocky scenery, he is continually coming upon these plantations which are dotted upon the sides of all the hills. The leaves are of a rich dark-green and afford a pleasing contrast to the strange and often barren scenery which is everywhere around." In the Bohea mountains, a great and wonderfully beautiful range which partially separates two of the greatest tea-producing provinces of China, Kiang-see and Fu-Kien; a high grade black tea is raised and made by Buddhist monks and Taouist priests "whose numerous monasteries and temples," says Miss Gordon-Cumming, "nestle in the most picturesque fashion among the huge rocks of the famous Woo-e-shan. Many of these temples are perched on summits of perpendicular precipices which, seen from the river below, appear to be wholly inaccessible. The tea-gardens where these agricultural brethren toil so diligently are most irregular patches of ground of every size and shape, scattered here, there and everywhere among these rocky mountains, but, like all Chinese gardening, tea-cultivation is exquisitely neat and the multitude of curiously clipped little bushes have a curiously formal appearance in contrast with the reckless manner in which nature has tossed about the fragments of her shattered mountains." Large quantities of tea are annually raised by the thousands of agricultural monks and priests of this far-famed district (Woo-e-shan), but, of the hundreds of millions of pounds of tea produced each year in China, the greater portion is the work of her hundreds of thousands of small farmer-growers, to whose remarkable care in the cultivation of their small gardens can be attributed the superiority of Chinese teas.

The principal tea-growing lands of the country are situated in the great Yang-tze basin of central China, one of the largest and most fertile valleys of the world. It embraces some

of the east-central, central, and west-central provinces of the Empire and is drained by the great Yang-tze-Kiang River and its numerous tributaries.

In spots throughout this enormous stretch of country are to be found innumerable tea-districts more or less notorious as producers of high, medium, or poor grade leaf, and these districts produce either green or black teas exclusively according to the species of plant raised and to the custom of the growers and manufacturers. The black teas of China are mainly produced in the tea-districts of the province of Fu-Kien on the south-east sea-board and in those of the central provinces of Kiang-see, Hupeh and Hunan; while the districts of the province Che-Kiang on the extreme east-central coast and those of the adjoining provinces of Nganhwei and part of Kiang-see are responsible for the supply of China's green teas. The south-eastern province of Kwang-tung, in which is situated the city of Canton, produces leaf which is manufactured at Canton into either the green or black sorts, scented, spurious, adulterated, or otherwise, according to demand.

Part of the province Sze-chuen in the west, adjoining Thibet, produces tea of both colors, but its output is mainly distributed throughout central Asia and in the form of brick-tea.

China Ooloong teas are produced mainly in the provinces of Fu-kien and Kiang-see, in the former of which are situated the well known cities of Foo-chow and Amoy which give their names to many kinds of China Ooloongs and Congous owing to the fact that the teas receive final manipulation there and are shipped abroad from these sea-ports.

A glance at the map of China will show that these tea-producing provinces are contiguous, include quite a little mountain land, and are well watered by numerous rivers and

streams which empty into the Yang-tze-Kiang and Canton Rivers.

From China the cultivation of the tea-plant extended to the adjacent island Empire of

JAPAN.

whose inhabitants acquired a taste for the delicious beverage, and its use, eventually, became national as in China.

Japan, although the second greatest producer of the tea-leaf, occupies the somewhat unique position of having, practically speaking, but one foreign market for her teas. China teas, India teas, Ceylon teas, and others, find markets, great or small, in all of the tea-drinking countries of the world, but the tea of Japan finds an outside market, of any consequence, in the United States and Canada only.

For many centuries this wonderful little island Empire, like her immediate neighbor, China, raised and cultivated the tea-plant for home consumption; her inherent dislike for all peoples and things foreign debarring a search for outside markets, notwithstanding the enormous possibilities which such markets could afford in trade and profit.

From the discovery of Japan by the Portuguese in 1542 until the year 1854, the foreign trade of the Empire, both import and export, was subject to the whims and pleasure of the existing rulers. Periods of intercourse and trade with Christian nations were followed by periods of prohibition and even persecution, until in 1854 the United States expedition under Commodore Perry effected an awakening; and the new era thus established has improved rapidly with the years, until it now appears to be, both socially and commercially, destined to last forever.

During the intermittent periods of commercial intercourse with, and exclusion of outside nations, Japan raised

no tea for export, although the plant was extensively cultivated in different parts of the Empire. With the opening of the treaty ports by Commodore Perry, the exportation of tea to the United States began, and the trade has been so fostered by the establishment of European and American "go-downs"—as the tea-preparing establishments are called—at shipping ports, and by the ever-increasing demand by the Pacific coast and Central states of this country and of Canada for the teas, that a truly wonderful trade has resulted.

Once introduced, the light body and delicate flavor of Japan teas quickly captured the fancy of Western Americans, and, from a small beginning a half-century ago, the trade has grown apace, until today the consumption of the green teas of Japan in the United States amounts to about 35 million pounds annually, or about 40 per cent. of the entire annual consumption of the nation.

For some years past British-Indian enterprise has attempted, by means of extensive and costly advertising, to displace the green teas of Japan and China in the American market, and gain a favor for the black product of India and Ceylon. Ten years or more of costly effort has proved to them, however, that the American consumer is not to be easily weaned from his love for the light and flavory Mongolian cup in favor of the heavy and pungent beverage of the Englishman; and now, acting upon the principle that if the mountain will not come to Mahomet, Mahomet must go to the mountain, these enterprising merchants are using every effort to produce a green tea from Indian and Ceylon leaf which will resemble the product of Japan in style and cup; and, with such teas, attempt to make the capture which their black teas failed to accomplish.

In the meantime the progressive merchants and growers of Japan are not asleep, and, aided by their Government, are

quite likely to prove as aggressively intelligent and active in the defense of their position as the British can be in their efforts to capture it. During the earlier years of the coming trade-warfare the American importer and dealer will watch the progress of events with the keenest attention, for, although uninterested, as yet, as far as production and manufacture are concerned, their financial interests and trade are likely to be affected, one way or the other, by the efforts of offense and defense.

It is somewhat surprising that Japan has, so far, been unable to establish a trade for her teas on the continent of Europe, for there can be no question as to the quality of her product. It may be accounted for, however, by the fact that the European demand, like that of Great Britain, is almost entirely for the highly fermented black sorts of China, India, Ceylon, and Java, which Japan does not appear to be able to produce or imitate successfully, although repeated efforts have been made by her manufacturers in this direction. It is not easy to create a demand for an article that is altogether different in appearance and flavor to the one in favored use, and for this reason, notwithstanding the acknowledged merit of their product, the Japanese merchants, should they ever make the attempt, are quite likely to find it as difficult to influence European tastes and opinions as the British found it in America. In the United States, however, Japan's foothold is exceptionally strong and, so long as her growers and manufacturers produce the meritorious qualities they are now exporting, but little fear for the future of their American trade may be anticipated.

The year 1902 showed an increase in the exports of Japan teas to the United States of nearly 5 million lbs. over 1901, although the exports of 1901 fell below those of 1900 some 3 million lbs. Altogether, for the last few years, the exportation of Japan teas appears to remain close to the 33 million

lb. mark, which is, at least, three-fourths of Japan's total export trade in teas.

According to the Bureau of Statistics of the United States Treasury Department the importations of Japan teas for the last three years were as follows:

In 1900.....	33,261,387 lbs.
In 1901.....	30,385,675 lbs.
In 1902.....	34,578,325 lbs.

As in China, the tea-plantations of Japan are mostly little spots of land cultivated by the owners. In the larger tea-districts of the country many of these tea-gardens adjoin and "spreading away over the gently rolling land, frequently by the side of the yellow-green rice fields, present, in summer, an exceedingly pleasant aspect, with their foliage of dark-green, especially if the picture is still further enlivened by women and children in their gay, clean clothes, busily picking the leaves."

Great care is exercised by the Japanese growers in the cultivation of the plant, for, like the Chinese farmers, they take a particular pride in the product of their little farm, and to the finished leaf they proudly apply a fanciful or poetic name such as "jewelled dew," etc.

Since the opening of Japan to the trade of the world in 1854, the cultivation of the tea-plant has increased quite rapidly; and, as the exportation of the leaf to the United States and Canada increased, new lands were, and are being, laid out as tea-gardens, where the plant was never raised before. The cultivation of the plant is carried on in Japan much as it is done in China; the ground is just as carefully worked and kept, and the plants are as well and as scientifically tended. Many centuries of the most careful husbandry have taught the Japanese farmer the art of cultivation, and in the sciences of irrigation and fertilization he is an adept, and, as a result, the arable land of the Empire has been brought to

a very high state of perfection. In China tea-land is rarely, if ever, manured, for the Chinaman fears for the flavor of his product, and justly so, for the fish-guano, oil-cake, manure and other strong-smelling fertilizers, which are in use in the coast districts of Japan, are responsible for the "fishy" flavor in the liquor so frequently recognized by experts at the tea-table when testing the lower grades of Japan teas.

Tea is grown in nearly all of the provinces of Japan south of the Tsugaru Strait, which separates the main island, Nippon or Hondo, from the northern island Yezo or Ezo, although in widely varying quantities. The greater producing districts are situated in the central part of the main island, between the thirty-fourth and thirty-sixth degrees of north latitude, and, in quality, as well as in the quantity produced, these great central tea-districts are far in advance of the outlying districts. The old centre of tea-culture in Japan is said to be situated at the southern end of Biwa Lake, and from this centre the industry has extended until it embraces most of the provinces situated between the 130th and 140th degrees of east longitude, having for distributing points for foreign markets the twin cities Hiogo-Kobe on the west, and Yokohama on the east, the enormous increase in growing territory being mainly due to the ever increasing American demand for the product.

The tea-shrub is cultivated also in favored spots in the provinces bordering the Japan sea; and in the southern island of Kiushui many acres are set apart for the cultivation of the shrub, but the product of these outlying districts is raised, mainly, for home consumption.

Japan leaf, irrespective of district, is made into the familiar kinds as we know them, but parcels of teas made into an imitation of the Chinese black and green sorts, such as Congous, Oolonges, and Gunpowders, are sometimes to be met with in American markets. The Japanese Government has en-

deavored to foster the production of such makes, but, so far, the success of the makers has been limited. With an energy worthy of its later history the Japanese Government has done much to aid the tea-industry at home, and the distribution of the product abroad, and to-day, many native companies have established agencies for the sale of teas, as well as for the furtherance of the cause of Japan teas generally, in many of the larger markets of this country and of Canada.

INDIA.

British India, the next on the list of the great tea-gardens of the world, has forged her way towards the front with tremendous strides during the last thirty-odd years.

About seventy-six years ago—in 1826—the tea-plant was discovered, growing wild, apparently, in the great virgin forests of Upper Assam; a province in the north-east corner of India, but which, at that time, formed part of the Burmese Empire. At the conclusion of the first Burmese war, in 1829, Assam was annexed to British India, and its hill and plain countries have since become famous as the greatest tea-producing districts of India. This discovery of the wild tea-shrub or tree has given, to Anglo-Indian growers and others, grounds upon which to base the claim for India as the original home of the shrub, a claim which must be left, however, to future scientists for verification or denial. The discovery is accredited to a Mr. C. A. Bruce, who, in his account, mentions the location of 120 tea-tracts, both in the hills and on the plains, some of which were very extensive. The discovery, very naturally, created considerable interest, and the attention of the Government was attracted. In 1834 the Governor General of India, Lord Wm. Bentinck, urged the importance of tea-culture, and a committee was appointed to investigate, and to form plans for introducing the shrub into such districts of India as seemed best



Photo From Life.

A TEA PLANTATION IN JAPAN.

W. S. P. Thompson

suiting to its cultivation. Under Government auspices nurseries were established in Assam, and Chinese seed and growing plants were imported for experimental purposes, but, for several years, the progress made was slow and unsatisfactory, and the reports returned from England, upon samples of manufactured tea sent, were not of an encouraging nature. In 1837 the Indian Government imported skilled Chinese labor (tea-makers and culturists) and, under the direction of the skilled labor so imported, good progress was made, so much so, indeed, that teas sent to England in 1838 were reported to be of excellent quality and commanded high prices in the London market. About this time the attention of capitalists and speculators was attracted by the great possibilities of tea-culture in India, and, in 1839, the Assam Tea Company was formed under the patronage of the English East India Company. Believing that the future of the industry was then in good hands, the Government retired, after having transferred its experimental gardens, growing plants, and nurseries to the tea-company. In 1850 the East India Company sent Mr. Robert Fortune, a scientist of renown, to China for the purpose of collecting tea-seeds, growing plants, etc., and of obtaining all the information regarding Chinese methods of culture and manufacture that it was possible to gather. This gentleman, familiar with the Chinese language, and dressed as a Chinaman, succeeded in penetrating into the most inaccessible parts of the Flowery Kingdom, and brought back with him to India many thousand specimens of growing plants and seeds, together with much valuable information and some native tea-makers and culturists. So great was his success, and so valuable was the information obtained, that he was again sent to other parts of China, and, a year or two after his return from this second successful expedition, his services, for a similar purpose, were enlisted by the Government of the United States, which, at

that time—about 1857—was seriously considering the possibilities of tea-culture in the Southern States.

Little progress was made, however, for several years, owing to the scant favor with which the teas were received in England. Further experiments were then undertaken, and efforts made to overcome the cause of so much disapprobation in the home country. The virgin forest-land, with its damp, fertile soil, covering a sandy loam, was proved to be particularly favorable to the growth of the shrub, but the seeds and plants imported from China, while producing a hardy plant, gave a leaf of inferior quality. Crosses between the native Indian plant and that of Chinese origin were then tried, and the result was the production of a leaf that gave satisfaction to English consumers, and overcame the home prejudice in a great measure.

A season of great activity was then inaugurated in India. During the years 1863 to 1865 Calcutta went wild in a mad speculation over tea-lands. Large tracts of country were purchased by speculators and sold to English limited liability companies at colossal figures. In England the stock of the numerous companies was eagerly purchased, but, eventually, the bubble burst, and, as a writer of the period puts it, "for a time the very name of tea-cultivation fell into immeasured odium," so much so, indeed, was this the case that plantations, which had cost the companies vast sums of money, were re-sold for whatever price they would bring.

The end of the craze was brought about in 1866-67, and, at that time, a few capitalists, realizing that the possibilities for tea-culture in India were boundless, and that the future of the industry could not always be influenced by the bitter feeling that existed against it, quietly purchased the more conveniently located estates and proceeded to develop them upon scientific principles. Overcoming the many primary difficulties which beset their path as planters, these capitalists

quickly proved their position, and it was not long before tea-plantations were laid out in other parts of the peninsular Empire, the acreage increasing annually, until today, gardens, in a flourishing condition, are to be found in all parts of the country where soil and climate have been proved suitable for the propagation of the plant.

From the date of the introduction of tea into Europe until the year 1869, China and, later on, Japan enjoyed a monopoly of the tea-export trade. In that year India had passed the experimental stage; had overcome the innumerable difficulties and serious drawbacks which had beset her path; and had entered the field as a competitor for the tea-trade of the nations, and, with an Anglo-Saxon perseverance, vim, and energy, her planters have, at this time, not only succeeded in supplanting China in the British and British-Colonial markets, but have also gained a foothold in other European and American markets which is yearly gaining in strength.

The tea-gardens of India, like those of Ceylon and other British countries where the plant is cultivated, are usually owned and operated by British stock companies, and, under such circumstances, it is not at all surprising that the product of the vast tea-estates—as the plantations are called—should find a preference in the home countries of the British Islands and the Colonies. The same determination which surmounted the initial difficulties of tea-culture in India and Ceylon, and which, so quickly, succeeded in destroying the British tea-trade of China, is now at work in an effort to capture the markets of the United States, but it is not possible to predict what the success will be. The business energy and acumen of the Anglo-Indian tea-grower, blender, exporter, and broker we cannot but admire. We are of his race, and our business methods are similar to his. His inventions of machinery for the purpose of saving labor in every stage of the preparation

of the tea-leaf for market; his superior manner of packing; his up-to-date business methods and unlimited capital are advantages which combine in his favor, and, in the race for supremacy, will surely count heavily against all competition.

The coming contest of the tea-producing nations for the future trade of the United States, however, is not at all likely to end in such an easy and overwhelming victory for Anglo-Indian enterprise as it did in Great Britain and in the British Colonies. China, it must be admitted, unless aroused by the exigencies of the situation, can hardly be expected to protect herself with any great amount of opposition, but pugnacious Japan will never yield a single inch of her position without offering a prolonged and bitter struggle. The fact, also, that China and Japan teas are very much more popular with American consumers than the heavy, pungent product of Indian and Ceylon manufacture can ever hope to be will prove a serious impediment in the way of the success of the Anglo-Indian, so that, in spite of the numerous advantages which he undoubtedly possesses, there are serious considerations and many difficulties which he will do well to contemplate before assuring himself that the markets of the United States may be easily carried by storm.

Tea-plantations—or estates as they are locally called—are now quite numerous in India and Ceylon, and, unlike those of China and Japan, are of vast extent, covering, at once, from 200 to 500 acres and more. A tea-estate in these countries, is, from its inception, an up-to-date, business-like proposition, and everything, from the planting of the seed to the packing of the tea-chests, is done within its confines. Cheap Indian and Singhalese male and female labor is employed in the planting, cultivating, plucking, and packing; and machinery, especially designed and built for the purpose, is used in all stages of the preparation of the leaf for market.

These vast estates have been, in most part, reclaimed from the rich jungle-lands of India, and from ruined coffee-estates, as well as from cleared jungle-lands in Ceylon, and, in point of appearance, present that neatness, regularity, and business-like precision which could be expected from the character of men that manage them.

In the earlier days of the industry in India the methods in use by the Chinese, in so far as cultivation and preparation are concerned, were followed, and hand-labor for all purposes was employed. The enormous demand, however, which was ultimately created for the product in Great Britain and elsewhere, urged the planters to adopt more modern and speedier methods of preparation, and the necessity thus arising, steam-machinery was invented to take the place of hand-labor in the various stages of preparation, and in packing. As far as locality is concerned the tea-districts of India are widely separated owing to the necessary conditions of climate, soil, altitude, etc. The earlier estates, as was quite natural, were laid out in a country where the wild tea-tree was discovered, that is to say in the hill-country of Assam, a province of the Himalaya regions in the north-eastern corner of the Empire, adjoining Burmah on the south, the Chinese province of Yunnan on the east, and Thibet on the north.

For some years this north-eastern section produced the entire Indian tea-crop, but the increasing demand of subsequent years forced a search for other suitable lands, which were found, as time went by, in the western and north-western parts of Assam, from whence the industry gradually extended along the hill and plain country to the west, and into the valley and foot-hill lands of the southern slopes of the Himalaya Mountains in the provinces of Bengal and The Punjab. Good tea-lands were discovered, also, in the extreme south-western part of the peninsula, in the hill-country of the Western Ghauts, a mountain range of the Madras Presi-

dency; which Presidency is separated from the adjacent island of Ceylon by the Gulf of Manaar.

The great northern tea-producing section of India is divided into tea-districts which are known to commerce as the districts of Assam, Cachar, Sylhet, The Dooars, Chittagong, Dacca, Darjeeling, Koch Bahar, The Terai, Kumaon, Dehra-Doon, Kangra Valley, Hazaribagh, Chutia Nagpur, Girhwal and others, while the south-western section is divided into districts which produce the Neilgherry, Travancore, and Wynaad teas.

These tea-districts are sub-divided into gardens of greater or lesser extent, and each garden has a name by which it, and its product is commercially known; the name being, frequently, but not always, of local Indian derivation. This garden name is usually adopted as a brand by which the entire production of the estate is distinguished from other garden teas of the same district.

Indian district-teas are quite distinctive in character, owing to distinctive climatic conditions, so much so, indeed, that tea-experts, particularly those of Great Britain, have little difficulty in recognizing the product of the different districts; reminding one of the ease with which the coffee-expert can choose between the different growths of Brazilian coffees; and many individual gardens produce leaf which is sufficiently characteristic to enable it to be distinguished from the product of other gardens of the same district.

The elevation at which the plants are grown has a great deal to do with the cup qualities of Indian teas, and it is generally conceded that tea grown in the hill-districts is much more flavory than that grown upon the estates of the plains.

Neilgherry Hills, Travancore, and other teas of the south-western districts resemble Ceylons in a measure, owing, no doubt, to a similarity of climate. They are lighter in body, and not so pungent as the majority of northern grown teas,



MAP SHOWING THE TEA DISTRICTS OF INDIA.

and, for this reason, are likely to meet with greater favor in the markets of the United States, for in this country tea-drinkers are not accustomed to such heavy-bodied, dark-liquoring, pungent teas as are produced by many of the northern Indian districts.

Some idea of the enormity of the Indian tea-industry may be gathered from the figures as given in an estimate of recent date. In 1901, according to the United States Consul at Bombay, there were 524,767 acres of land under tea-cultivation, producing over 191 million lbs. of tea. In that year the industry gave employment to 660,000 persons, and represented an invested capital of 54 million dollars. By far the greater portion of this enormous output is produced in Assam and Bengal, which provinces are responsible for nine-tenths of the Indian tea-crop. The increase in the output of India teas during the last ten years shows an annual average of about $8\frac{1}{2}$ million lbs., so that when we consider that Ceylon's increase has been proportionately greater, it is easy to discover a reason for so much anxiety on the part of the Anglo-Indian in his search for other markets. Approximately estimated India's export of tea for the last thirty years has been as follows:

In 1871 $13\frac{1}{4}$ million lbs. were exported.

In 1881 $38\frac{1}{2}$ million lbs. were exported.

In 1890 112 million lbs. were exported.

In 1900 197 million lbs. were exported.

In 1901 $191\frac{1}{4}$ million lbs. were exported.

An increase of about 184 million lbs. in 1900 over 1871.

CEYLON.

The history of the capture by Ceylon of her present position as one of the foremost tea-producing countries of the

world is, as Clutterbuck has it, "a striking illustration of the dogged determination and persevering energy of the Englishman," for the planting history of this far-famed island is filled with deeds of commercial daring such as have rarely been equalled in the history of agriculture or of trade elsewhere. Few planters, indeed, in any country have been called upon to pass through such disastrous times and long periods of depression as fell to the lot of those of this semi-tropical island, and, had it not been for that dogged determination and perseverance spoken of by Mr. Clutterbuck, the periods of great prosperity which succeeded those of equally great depression would have been extremely improbable, although it would have been more just, in bestowing the words of praise, to have credited the British people as a whole, instead of the Englishman alone, for numbers of the planters of Ceylon were then, as now, of Scotch and Irish birth as well as of English.

Forty years or so ago the ground now occupied by a seeming endless expanse of tea-estates was completely covered by a vast and solitary jungle, amid whose labyrinths of moss-grown trees, straggling limbs, and entwining tropical creepers, no sign of a road and scarcely a trail could be found; a fitting habitation, indeed, for the beasts of prey that found a roaming place within its shades. Later, and within the memory of young men of today, the mountain sides and valleys of this same land were overspread with an exuberant growth of coffee-bushes, for the propagation of which plant thousands of acres of jungle-land had been cleared, involving the investment of many millions of British and Colonial capital. For years the cultivation of the plant which produces the fragrant berry had occupied the full attention of many of the planters and had created an industry which had become the main-stay of the island; and these were not only years of great prosperity but were filled with the promise of greater

riches to come. Suddenly, and at the height of this prosperity, the abundant hopes of the planters were changed to feelings of the deepest gloom, for an insidious coffee-leaf disease of a fungus nature, scientifically known as *Hemileia Vastatrix*, made its appearance and obtained such a hold upon the bushes that the most strenuous and untiring efforts of the planters failed to eradicate it, and then it was realized that the future of the coffee industry was doomed. Ruined investors at home cried out to the ruined planters of the island; ruined planters turned in their need to the ruined capitalists of the cities, and they to the banks, but all to no purpose, for the main-stay of the island itself was ruined, and financial disaster stared the entire community in the face.

Those of the planters who were able to do so sought other crops to take the place of the coffee-bush on their devastated lands, and for several years experiments, that, in the main, terminated disastrously, were tried.

The most notable of these was the attempt to create a profitable industry by the cultivation of the Peruvian *Cinchona-tree*, from the bark of which the drug *quinine* is made, but, although successful in the propagation of the tree, the planters were unable to re-establish themselves, for the resulting over-production of the drug glutted the markets of the world, and the lowered prices that were obtainable when sales could be made, were anything but remunerative.

Stern necessity, after years spent in fruitless effort, therefore, compelled the planters to seek relief in some direction as yet untried, and, fortunately for Ceylon, the cultivation of the tea-plant was suggested. Grasping at the idea, the courageous planters undertook the trial, and during the period of experiment that followed, results were obtained that proved the entire suitability of both soil and climate to the propagation of the plant. Financially embarrassed, and, in many cases, overwhelmed with debt, the planters began

the work of transforming the ruined coffee-plantations into tea-estates, and, although such an enterprise involved the expenditure of vast sums of money, the profits upon which, if any, were not likely to become manifest until the tea-shrubs had had time to reach the age of maximum productiveness, the planters persisted; raised funds sufficient for the purpose in some way; laid out their tea-gardens and awaited developments.

And so it happened that ground which, thirty years before, was one impenetrable forest; that later became a colossal coffee-plantation; was now destined to become covered with the waving green of tea-shrubs.

Tea-cultivation may be said to have begun in Ceylon in the year 1867; for about that time some ten experimental acres were planted. For several years thereafter the progress made was slow, owing to the financial condition of the country; to the extreme difficulty that many of the planters experienced in obtaining the necessary funds from the outside, and to the lack of enthusiasm consequent upon the failure of previous commercial crops, and it was not until eight years later—in 1875—that the first experimental shipment of manufactured tea was made to England.

This sample of a new country growth—some 282 lbs. in all—was received with suspicion in London, but the quality of subsequent consignments forced a more kindly attention from the British tea-men, and the distressed island planters were rewarded for their long fight against disaster by the knowledge that success had, at last, been achieved, and that the future of the tea-industry of the island was assured.

Indian experiences in cultivation and manufacture were exceedingly helpful to the inexperienced planters of Ceylon, who were careful to avoid the initial mistakes of their brother-planters of the mainland, and to adopt the latest and most approved methods of cultivation, plucking and curing.

Once fairly started, the progress made was extremely rapid; each succeeding year showing an enormous increase in the output of manufactured leaf over that of preceding years; until today the production of tea by the island planters, in spite of the increase that India has continued to show, falls little short of that of the latter country; and, should the same ratio of increase be maintained for a few years to come, the planters of Ceylon will have the satisfaction of outstripping their Indian preceptors, and of seeing their little island become the third greatest tea-producing country of the world.

Owing to the comparatively small area of the island—which is about 275 miles long by 140 miles wide—the tea-districts of Ceylon are localized, and are situated mainly in the central, southern and south-western parts of the country. Ranging from the higher elevations of the central interior surrounding the City of Kandy, some 6,000 feet above sea-level, and away to the sea-coast on the west and south-west, estate frequently adjoins estate, and, when such is the case, mile after mile of undulating valley- and hill-country is to be seen clothed in the perpetual green of gleaming tea-bushes; the scene, when enlivened, here and there, by the bright-colored turbans and clothing of native pickers, presenting a picture of restful beauty; a picture suggestive, in all its phases, of peace and plenty and content.

Tea-plantations in Ceylon are laid out upon lines similar to those of India, and present the same appearance of neatness, regularity, and business-like precision that characterizes the gardens of the mainland. The estate-coolies or laborers—Tamils mostly—live in small, clay-lined, chimneyless rooms, called “lines,” built expressly for them upon the grounds; the factory is usually situated in the most convenient part of the plantation for the purpose, and the planter’s home or “bungalow” in some shady spot in close proximity to the gardens.

Although the teas of Ceylon are recognized by their district and estate names in England, a classification by such is, as yet, unusual in the United States. Like the district teas of other countries those of Ceylon are distinctive and characteristic, but, in this country, they usually pass collectively and individually as Ceylon teas. Both district and estate names are most frequently words of Singhalese origin and these are so very difficult of pronunciation and remembrance that it is not at all surprising that no attempt is made in ordinary tea-circles to use them. We hear of the districts of Maskeliya and Dickoya; of Dinbula and Dolosbagie; and of the Mahadowa, Cocogalla, Happootalle and other estates, but, until Ceylon teas are better known, and in more general use in the markets of the United States, these district and estate names are likely to remain unused and unknown. For many years after the successful establishment of the tea-industry, the planters devoted their efforts almost exclusively to the capture of the markets of Great Britain and her Colonies, but, with the extensive increase in acreage, and the consequent increase in production, new markets became necessary and a trade-seeking propaganda on the part of the tea-men, ably assisted by the Government of the island, was inaugurated. Markets in continental Europe and in America were invaded, and, from the onset, the business-like invaders appeared determined to make the new markets their own.

In order to assist in the capture, both the Indian and Ceylon Governments passed ordinances establishing a so-called "tea-cess" or duty of so many cents per 100 lbs. on all tea exported; the money so obtained being devoted to the purpose of advertising the teas generally in the various markets of the world; and so faithfully was the money spent, and so satisfactory in every way were the actual results of this general advertising that, in 1902, it was deemed advisable to increase the cess from 20 to 30 cents per 100 lbs. for further use in a

similar direction. Although Ceylon and India teas were known to the trade and in use in a small way in this country prior to 1893, the extensive advertising given to them at the World's Fair at Chicago in that year was, to a great extent, instrumental in creating a demand all over the country. Since that time continued advertising has increased the demand materially, until today the consumption of Indio-Ceylon teas in the markets of the United States is averaging between six and ten million lbs. annually.

Hitherto, or, at least, until the last year or two, the East Indian tea-men have attempted to push their black teas exclusively in America. Not satisfied with the results attained, proportionately great as they have been, these enterprising merchants have determined to capture the green tea-markets of America, and, with a characteristic zeal, have undertaken to produce green teas in imitation of those of Japan and China. Time alone will prove their ability in this direction, for the green teas already marketed in this country and Canada by the Indian and Ceylon manufacturers, although, recently, quite improved in appearance and drinking quality, are not such as might be expected to gain the desired end. If, however, we may judge by the result of their untiring efforts to overcome obstacles in the past, it is only reasonable to expect that their endeavors to produce a satisfactory green tea, and create a growing demand for it in America will result, as usual, in success. Meantime we, the consumers of the United States, are open to conviction, and, although most of us, when our pocket-books are in our hands, are quite likely to consider for the moment that Missouri is our native state, the tea-men of sunny Ceylon may depend upon a fair and impartial treatment, for, in the selection of articles of consumption, quality comes first with an American, favor next, whoever it may hurt or benefit.

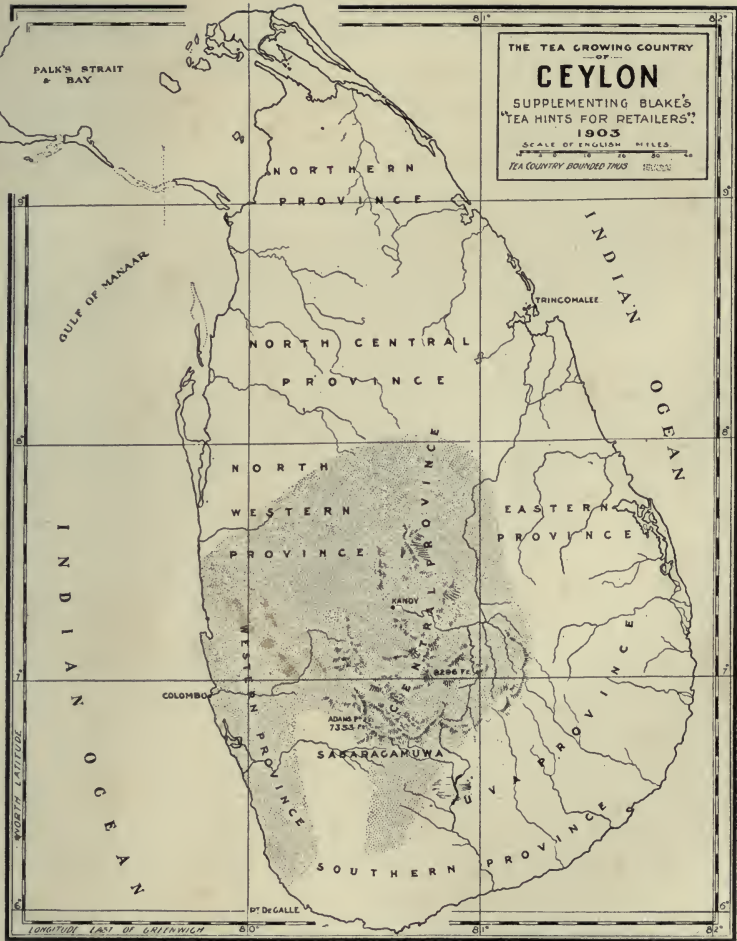
For some year or two past the tea-industry of Ceylon

and India has suffered somewhat from the effects of over-production; the war taxes levied on tea by the Governments of the United States and of Great Britain having had much to do with, and forcing, a decrease in exportation; and a check to the planting of fresh tea-lands has resulted. The heavy annual gains in the sale of Ceylon teas to Russia, and other continental European and Asiatic countries, has been the means, however, of preserving a balance between output and export, in spite of the decreased quantities taken during war-tax years by Great Britain and the United States; and although the year 1901, when compared with that of 1900, showed a decrease in exports of about three million lbs., the year 1902 has succeeded, by the aid of other countries, in bringing the total to within easy reach of Ceylon's greatest tea-year, 1900, during which season the enormous total of nearly 150 million lbs. of tea was exported; an amount equal to nearly twice the entire annual consumption of the United States.

The following table will give an idea of Ceylon's rapid rise as a tea-producing country; a record that any country might, reasonably, be proud of possessing.

In 1875 Ceylon exported about....	282 lbs.
In 1876 Ceylon exported about....	757 lbs.
In 1880 Ceylon exported about....	139,752 lbs.
In 1895 Ceylon exported about....	98,000,000 lbs.
In 1896 Ceylon exported about....	108,141,412 lbs.
In 1899 Ceylon exported about....	130,000,000 lbs.
In 1900 Ceylon exported about....	149,264,602 lbs.
In 1901 Ceylon exported about....	146,299,018 lbs.
In 1902 Ceylon exported about....	148,999,241 lbs.

The above figures include exports of 1,110,774 lbs. of green tea in 1901, and 2,796,844 lbs. in 1902, all of which came to Canada and the United States.



MAP SHOWING THE TEA COUNTRY OF CEYLON.

The average annual increase of Ceylon's tea-production in recent years has been about 10 million lbs. and that of India about 8½ million lbs.

In Ceylon, according to the latest statistics obtainable, there are about 387,000 acres of land under cultivation to the tea-plant, as against about 524,767 acres in India.

Both in India and Ceylon more attention has, of late years, been given to quality by the planters, and this, if largely carried out, will result in higher costs for the product, and, possibly, by a decline in the quantity produced, for qualities cannot be improved to any great extent unless closer plucking, that is, the plucking of none but the tenderest leaves, is undertaken.

As far as quality is concerned the island of Ceylon undoubtedly holds the record for having produced and marketed the costliest tea of recent years, as the following extract from the "Pall Mall Budget" of March 13th, 1891, will show. It says, in part: "Golden-tips sold at auction in London as high as £35 per lb. This tea possessed extraordinary quality in liquor, and was composed entirely of small golden tips which are the extreme ends of small succulent shoots of the plant." It would, of course, be difficult to find out, but it would, nevertheless, be extremely interesting to know just what the English merchant obtained for a tea that cost him about \$175 a lb. But that was before the South African war.

JAVA.

Tea-culture in the Dutch island of Java has been one of the varied industries of that country for about seventy-five years. Nurslings and seeds were introduced from Japan in 1826, and, a few years later, Chinese plants were imported by the planters who, at the same time, brought expert Chinese

labor to the island for the purpose of instructing the natives in the art of raising the plant and curing its leaves.

For some years prior to the introduction of the tea-plant, the island planters had been working their sugar, coffee, spice, and other estates under an admirable method of government co-operation, known as the Van den Bosch "*culture system*;" which system gave financial aid to the planters on long and easy terms, but compelled both Dutch and native growers to cultivate staples for export.

Under the system the cash advanced by the government was refunded in yearly instalments of produce, and the produce itself was handled, as a whole, by government agents who found foreign markets for the planters.

The culture of tea at once came under this system, and, according to the terms of the contract, the planters were compelled to manufacture equal quantities of both green and black teas, following Chinese makes. They were also obliged, in the case of tea, to sell their entire output to the government, which disposed of it to the best possible advantage, and in settling, credited the planter with his agreed annual refundment of advances.

For many years, and in spite of the fostering care and efforts of the Dutch authorities, the planters made no financial success of the venture, owing to the fact that their product was poor and unsuitable. The leaf, although well made, small and handsome as compared with that of their only competitor, China, was lacking in all that goes to make good cup qualities. The infusion was dark-colored, bitter, rank and weedy, owing, no doubt, to the characteristics of the rich virgin soil of the new plantations, and a market at profitable figures, under such circumstances, was, of course, impossible.

The home country, Holland, as well as Germany and some minor Asiatic States began, however, to take the teas when a heavy reduction in price was offered; and to this day these

countries are the only customers Java has for her teas, although small parcels of her makes are to be found in this country and in England.

The success which attended the introduction of tea-culture by their neighbors in India greatly encouraged the Java planters and resulted in the importation of Assam and Hybrid plants, and, later, in the adoption of Indian tea-machinery and Indian methods of manufacture and packing. After this Java teas materially improved in cup qualities, and, today, some fine teas are produced upon the island, but, like those of India and Ceylon, it is very doubtful if they will ever equal the time-honored hand-made teas of China in flavor and bouquet.

Javanese tea-gardens are as well cared for, and are as picturesquely handsome as any in the world. Extreme cleanliness and neatness are the rule both on the plantations and in the old-fashioned red-tiled factories, which are called "*fabriks*." Mathematical precision dominates the long rows of squatty tea-bushes which, as in India and Ceylon, give up their pickings throughout the year without danger to the plant.

Java teas, following the Indian makes, are known to the trade as Pekoes, Souchongs, Pekoe-Souchongs and Congous, and, following the Chinese makes, are known as Hysons, Young Hysons, Imperials and Ooloongs, but less green teas are manufactured each year. The principal tea-plantations of Java are situated in the Preanger Regencies, rich and beautiful valley and hill country in the western part of the island, not far from Java's great sea-port, Batavia, from which city the teas are shipped. It may be interesting to know that Java, although considered one of the minor tea-producing states of the world, can make the claim, and without much fear of contradiction, of possessing the largest single tea-garden in the world. This plantation, known as the Sinager Estate,

it is said, covers about fifteen thousand acres of land, nearly one-half of which is under tea and coffee cultivation. The output of prepared tea-leaf from this plantation is in the neighborhood of one million pounds annually. The quantity of Java teas exported in 1901 was nearly 17 million lbs., the greater portion of which was shipped to Holland.

SOUTH AFRICA.

Notwithstanding the fact that the old tea-producing countries, China and Japan, have, during the last fifty to seventy-five years, met with the ever growing competition of those countries which have, of later years, entered the race, their production and exportation has materially increased with the years, and continues to increase. This fact simply proves that a greater demand for the leaf is obtaining throughout the world, and, as if in further proof, it will be noted that whenever a new producer arises it finds a ready market for its product, provided, of course, that the leaf is commercially suitable. Hitherto, as has been shown, the countries which have embarked in the tea-growing industry are situated, geographically speaking, close to China, the ancient home of the plant. Japan, Java, India, Ceylon and others, as well as China herself, are all within the so-called monsoon region of Asia and it ever has been thought that in these latitudes only would the tea-plant thrive. In contradiction to this belief the British colonies in South Africa have, of late years, entered the field as successful growers of the plant, and as competitors for a portion of the tea-trade of the world; and should the planters of those far-away lands enter the race with the same commercial energy which has been displayed by their kinsmen of the monsoon regions of Asia, and should the conditions of soil and climate prove to be as advantageous as is claimed for both, a most important factor in the world's production of tea is likely

to result. The colony of Natal, so recently the scene of many battles, costly alike to Boer and Briton, has been quite successful in the raising of the plant and the curing of its leaves, so much so, indeed, that the output of the colony, prior to the outbreak of the South African war, was estimated to be about 1½ million pounds annually. The most important tea-gardens of Natal are situated in the north-east corner of the colony adjoining the province of Zululand and separated from it by the historical Tugela River, to cross which Gen. Buller spent so much British blood in his numerous efforts to relieve the besieged British garrison under Gen. White in Ladysmith. Near the mouth of the Tugela are some fairly large plantations, the largest being known as the Kearney Estate, which has some 1,750 acres of tea-plants. The production of manufactured leaf from this Estate in 1901 was upwards of one million pounds.

As is usual with the later British-Colonial tea-growers, the ideas, plantations, machinery and modes of preparation in Natal are patterned after those of India and Ceylon, from whence the seeds and plants were imported, and this fact naturally gives to Natal a production similar to that of the former countries. The possibilities for the future of tea-culture in this British colony are said to be enormous, for not only have her planters the advantages of a soil and climate which will produce an average annual crop of from 400 lbs. to 700 lbs. to the acre—a yield which is as heavy again, at least, as the average yield of China—a labor question solved by the importation of Indian coolies under five year contracts or “indentures,” as the contracts are called; but they have, also, the experiences of India and Ceylon to guide them to success.

Great Britain is Natal's natural market, although much of her product is consumed at home and in the adjacent colonies of South Africa. Her teas, it is said, are exceptionally good; equal, in fact, all things being considered, to those of

India and Ceylon to which they are, in appearance and quality, akin.

FORMOSA.

In the language of the Portuguese the word "formosa" signifies "beautiful." In the year 1590 some voyagers of that nation while skirting the eastern coasts of the island for the first time, and "sighting the green-clad mountains with peaks piercing the scattered clouds; cascades glimmering like silver in the tropical sunlight, and terraced plains waving with feathery bamboo, exclaimed, with glad surprise, '*Ilha formosa; Ilha formosa.*' ('Beautiful isle, beautiful isle!')" With a characteristic Latin love for the descriptively beautiful, these adventurers chose the word "Formosa" as a name for the island, and by that name the Western world has known and called it since.

Of Malayan origin the aborigines of Formosa gave to it the Malayan name of Pe-kan or Pe-kan-do. Under Chinese rule the island was originally called Ki-lung-shan by them, but, at a later date, it was changed to "Tai-wan," signifying "terraced harbor," and to this day the island of Formosa is called Tai-wan by the Chinese.

Prior to the conclusion of the late Chinese-Japanese war the island of Formosa formed a part of the Chinese Empire, and, as such, its tea-product, although entirely distinctive as a class, and looked upon by tea-men generally as an individual sort, should rightfully, but for geographical reasons only, have been commercially classed as one of the China kinds. The transfer of the island to Japan, as a portion of the war-indemnity which China was compelled to pay to her victorious neighbor in 1894, gave to Japan a possession of untold value, and one which, in the hands of the progressive Japanese nation, is destined to play an important part in the future history of the tea-commerce of the world.

Although Formosa tea is akin in make to some of the sorts manufactured in the Chinese Province of Fu-Kien, from which the island is separated by some 150 miles of water, geographically known as the Formosa strait—and inasmuch as the style of make, methods of culture, preparation, etc., are distinctly Chinese—for the natives of the island, although of Malayan origin, have, from long intercourse and intermarriage with the people of China, imbibed Chinese methods, and characteristics—the justly celebrated product can no longer be claimed by China as a Chinese tea, but for the reason only that the island is no longer Chinese.

On the other hand, and having the various Japanese tea makes in mind, it would be quite confusing and distinctly incorrect, commercially speaking, to class Formosa teas as Japanese, merely for the reason that the island is now a Japanese possession, so that, if any change is attempted, or considered necessary in the future classification of Formosa teas by reason of the late change of ownership, it would appear to be reasonable, and entirely correct to class them as a distinctly individual sort, and give to the island, notwithstanding its Japanese connection, that prominent place in the ranks of the celebrated tea-gardens of the world which it so richly deserves.

The history of the tea-industry in Formosa, although of recent origin, is identical with that of China. The methods of cultivation, preparation, etc., are, conditions of soil, climate and leaf being considered, similar to those of China, and the careful husbandry and cleanly habits of the farmer-growers are the equal of those of the farmer-growers of the Flowery Kingdom.

The island produces but one commercial leaf, known to the world as Oolong or Oolong, and, frequently, in inner tea-trade circles, as "Tam-sui" leaf; so-called because the teas receive final manipulation at and are shipped from the port

Tam-sui. The word "Ooloong" is derived from the Chinese name for the make, "Ouloung," which is properly pronounced as if spelled Oo-lo-ong, but is more frequently spelled and pronounced "Oolong." It is said to mean "Green Dragon," and is so-called because of the small yellowish-green leaf which intermingles with that of darker hue, in greater or lesser quantity, according to the grade.

As in China and Japan, the tea-gardens of Formosa are mostly little spots of land, owned and cultivated by native farmers, who, like their kinsmen of the mainlands, take particular pains with, and pride in their gardens and product. These tea-gardens are situated mainly in the extreme northern and north-eastern part of the island in close proximity to the sea-port Tam-sui, to which city the crop is conveyed for final manipulation and for transportation abroad. "The valleys of the Tam-sui and its tributaries," writes Wilson in 1888, "including the lower Kelung, are broad, level plains, mostly given up to rice fields from which two crops a year are harvested; but the hills are everywhere in sight, and, in many cases, are covered to the very top with tea-plantations, producing large quantities of Formosa Oolong. Its cultivation was begun only a few years ago, but, since nearly all the hill and mountain region of the island is adapted to its growth, it is evident that any quantity required by the world can be supplied. The soil of the tea-fields is a reddish, clay-like loam, which at a distance contrasts strongly with the green covering of the hillsides. The plantations are generally small, containing, as a rule, from a quarter of an acre to three or four acres." "Tea-culture is now becoming important," writes Dr. Mackay in 1898, "and Formosa tea is already a popular beverage in Britain and America. A large plateau to the south-west of Tam-sui that twenty years ago was a meadow broken in upon by little rice farms is now a magnificent tea-plantation. This industry gives employment

every year to thousands of people many of whom are brought from the mainland" (of China).

The conditions of soil and climate which exist in Formosa are distinctively favorable to the cultivation of the tea-plant and quite dissimilar to those of any other tea-country, and, owing to these extraordinary conditions, the leaf possesses an aroma and flavor which is, unquestionably, the world's best, and which no other leaf can ever hope to equal. Late rains, which are extremely heavy in the fall of the year, and the subsequent damp heat of the atmosphere, have a very marked effect upon the quality of the later picked leaf, and, owing to this fact, tea-men give especial preference to these late, or "Autumn pickings," as they are called, as against those of the earlier, or "Spring pickings," which, in consequence of a lack of moisture, are wanting, as compared with autumn leaf, in body, aroma and flavor.

During the commercial history of Formosa under Chinese rule, the island, for a time, formed a part of the province Fu-Kien, and teas were usually forwarded from Tam-sui to Amoy, on the Chinese mainland, and, at the latter sea-port, settlements of Formosa teas were made by foreign importers through Chinese brokers and merchants. This has, of course, been changed since the island passed into the possession of Japan, and now Formosa teas are either shipped from Tam-sui direct, or are transferred to Kobe or Yokohama, Japan, for settlement. Some of the European and native go-down owners of Japan have established houses in Tam-sui and at other points on the island, so that American importers are now able to place their orders for Formosa teas in like manner as they do for Japans. This is a step in the right direction, and it is to be hoped that it will be the means of promoting the importation and consumption of Formosa teas in this country, for they are, without exception, the finest that grow.

THE UNITED STATES OF AMERICA.

Ever since the introduction of "the cup that cheers" to the civilization of the Occidental world, tea-culture, and all that pertains to it, has been intimately associated in western minds with impressions of fever-jungles, tropical storms, steaming malarial swamps, picturesquely costumed Orientals and other things and beings Asiatic; and so very long, indeed, have we been accustomed to regard the tea-plant as a distinctive product of the Monsoon regions of semi-tropical Asia, and its cultivation and the mysterious manipulation of its leaves as the ancient, exclusive, and indisputable right of vocation of the hard-working, silent, almond-eyed coolie, that it is difficult to associate such a husbandry, and such an industry, with any country, climate, or peoples other than those of Asia.

As a result of this old-time and well-established impression it will be a little difficult for Americans to realize that the cultivation of the tea-plant has been seriously undertaken in America, and much more difficult yet for them to believe that the propagation for profit of such a distinctly foreign shrub has met with a measure of success in this country which not only assures the future of an industry that will, eventually, free America from an absolute dependence upon Asia, and upon Asiatic coolies, for her tea supply, but upsets forever all pre-conceived theories and ideas as to the latitudes and longitudes necessary for the successful cultivation of the plant. The history of the experiment of tea-culture in the United States gives another example of that indomitable courage and persistence under extreme discouragement which is so characteristic of the Anglo-Saxon race wherever found, for, since the inception of the idea, until quite recently, every experiment has proved to be a failure; and had it not been for the indefatigable efforts of a few resolute Northern gentlemen, aided by the advantageous climate and soil of the sunny South, and

by the occasional assistance of the Department of Agriculture of the Government, the experiments would have been discontinued as impracticable long ago.

Quite frequently, within the last half-century, or so, the United States Government has made well-directed efforts to aid and foster the experiment of tea-culture in States where conditions of soil, water supply, and climate were likely to prove favorable, and, to this end, seeds and plants have been procured, at intervals, through Government agents abroad and distributed among those land owners who cared to take up the experiment. As far back as the year 1800 a tea-plant was brought to the United States by the French botanist, Michaux, and planted at a point some fifteen miles from the City of Charleston, South Carolina, where it still lives, a healthy tree, some fifteen feet in height; and it is quite likely that the health and vigor which this tea-tree has always exhibited was the means of originating the idea of tea-culture in America. Later in the century efforts were made by Dr. Junius Smith of Greenville, South Carolina, to propagate the plant from seeds obtained from India, but his death, before a practical conclusion could be reached, put an end to the experiment at that time. A few years prior to the beginning of the Civil War the Government imported large quantities of seeds from the various tea-growing countries of the Orient, and distributed them throughout the Southern States, but the outbreak of hostilities in 1861 put a stop to the various experiments and, for many years thereafter, nothing further was done. In the year 1881 Congress voted an appropriation of funds for the purpose of promoting and protecting tea-culture in the South, and, for the time being, considerable interest was awakened in the country surrounding the various scenes of action, but the experiments were attended by results so disappointing and discouraging in every way

that the project was, practically speaking, abandoned as impossible.

The relinquishment of the experiment by the Government and the subsequent withdrawal of its financial support did not, however, deter private enterprise from making further tests, for the knowledge gained during the years of investigation was valuable. It had proved, to those who had the welfare of the idea at heart, that the failure of the initial experiments was due either to a lack of positive, or accurate, knowledge of the laws which govern successful tea-culture, or that the soil and climate selected were unsuitable; and, above all, it was the means of establishing a well defined idea in the minds of a few enthusiasts that, under express conditions, the tea-plant, notwithstanding past failures, could be successfully and profitably cultivated in certain sections of the United States.

Twelve years ago, or thereabouts, Dr. Charles U. Shepard broke soil at his Pinehurst Plantation, Summerville, South Carolina, for an experimental tea-garden. In the face of trying difficulties, numerous disasters to his young plants, and other discouragements, he persisted in his efforts to make the experiment a successful one, and demonstrate to the world at large that his theories were practical, and that a successful and profitable industry could be established if correctly managed. After a few years spent in continued research and costly experiment, Dr. Shepard's efforts were rewarded by successes great enough to attract the attention of the Secretary of the Department of Agriculture, and, after further evidences of a successful termination of the experiment were forthcoming, the moral and financial support of the Government was enlisted in the project, to the end that the Pinehurst Tea-Plantation is now a provisional Government institution and Dr. Shepard the Special Agent in charge Tea-Culture Investigations. To-day the Pinehurst gardens are yielding a profitable harvest of tea-leaves, so that to Dr. Shepard belongs the honor

of having produced the first commercially successful tea-garden in the United States, and of having established an industry in the South which is destined to grow with the years and become the means of providing a new, pleasing, and healthful employment to many hundreds, and, eventually, thousands of native Americans.

Although the Pinehurst Plantation can scarcely be said to have much more than passed its experimental stage, sufficient evidence is at hand to fully warrant the statement that the experiment is a success and that the future of the tea-growing industry in the United States is assured. In this connection it will be well to quote the remarks of Secretary Wilson of the Department of Agriculture who, in his annual report to the President in 1902, says in part: "Whether or not tea growing in this country can be made a commercial success will depend, in large measure, upon most rigid attention to the details connected with the field and factory work. It is not expected that any large profits will be made, *but it is believed that by proper and judicious management sufficient profit will result to encourage the planting of the crop in many parts of the South, especially where there is cheap labor available.*"

It is true that many and serious difficulties have yet to be overcome before American growers can hope to compete successfully with those of the older and more experienced producing countries, but it can be confidently stated that few of our industries have shown more lusty health and vigor in infancy than that of tea-growing under present circumstances.

The tea-plantation at Pinehurst has, since its inception, been nothing more than an experiment; at the beginning on a small, now, on a practical scale, for to demonstrate the feasibility of tea-culture has ever been Dr. Shepard's sole idea. "At the commencement," he writes, in 1899, "it was wisely

on a small scale, but has been gradually increased until now over 50 acres have been planted in tea."

It will be readily understood that, inasmuch as the experiment was intended to produce practical results in every way, the manufacture of the green leaf into a commercial commodity was of as much importance as the successful culture of the plant itself, so that, although upon a small scale, the plantation and its attendant factory have been systematically arranged, well kept and laid out upon lines calculated to minimize the labor-cost of culture and manufacture, and produce the green and commercial leaf at as small an expense as possible.

In the beginning "it was desirable to conduct the experiments," says Dr. Shepard, "with as many varieties of seed and under as different conditions of soil and location as possible. To this end, by the kind assistance of the Department of Agriculture, and by purchase from foreign and domestic producers, a considerable variety of seed, representing many of the choicest sorts of tea, was obtained. Gardens were established on flat and on rolling land, in drained swamps and ponds, and on sandy, clayey, loamy, and rich bottom soils." In the gardens today growing plants and nurslings of Chinese, Japanese, Indian, Indian-Hybrid, Formosan and other species may be seen flourishing in their especial acreage and nurseries, where each species receives that agricultural attention necessary for its individual well being. Some varieties of the above mentioned species have taken more kindly than others to the new conditions of soil, climate, and irrigation to which they have been subjected, which was to be expected, but, with time, experience, skilful manipulation and management, it is anticipated that all species of the plant, and all varieties of species will become acclimated and thrive equally well.

So far the production of marketable leaf, owing to a limited acreage of full bearing plants, has been, necessarily, small.

It takes time for the plants to grow, and several years must elapse before the present producing plants will attain the age of maximum productiveness, and the present and future nurslings of the Pinehurst, and other gardens, reach that period of their life when leaf-plucking may be safely undertaken, so that for many years to come the demand of Americans for "American tea" is sure to be greatly in excess of the supply. During the season of 1901 the total output of "Pinehurst" prepared leaf was 4,000 lbs., which quantity included the several kinds, grades and makes of both green and black teas; and during the present season, 1902, the output of all sorts is expected to reach a total of from 8,500 to 9,000 lbs.

It goes without saying that the expectations of those interested in the production of American tea have been fully realized in the matter of finding a ready and appreciative market for the product, which, so far, has been sold at prices that have returned a profit to the plantation of between \$40 and \$50 an acre; an object lesson in profitable soil-cultivation which many progressive land owners will not be slow to improve; and, now that all material difficulties have been swept aside and success assured, we may look expectantly forward to the time when thousands of Southern acres will gleam with the delightful green of waving tea-bushes, and the country sides resound with the happy laughter of busy leaf-pickers.

Every pound of tea-leaf grown at Pinehurst is cured and prepared for market in the tea-factory which has been especially built for the purpose in a convenient part of the plantation. This factory has a daily capacity of 125 lbs. of tea, and is equipped with labor-saving machinery of various kinds; including machines for wilting and evaporating the leaf; machines for rolling; traveling trays for drying; hot-air machines for firing; sifting machines; screens, fans, etc.; and, in consequence, it may be truthfully claimed that every operation of the manufacture of American tea is attended by a per-

fect cleanliness; a cleanliness which is unequalled by most Eastern methods; producing a tea that is entirely "*machine made*," and as much untouched by hand as any British manufactured tea.

The greatest drawback which American tea-growers are likely to meet with in the production of a commercial article is in the question of labor in plucking the leaves. It is not reasonable to expect that labor can be procured in this country which can successfully compete in price with the cheap coolie-, female-, and child-labor of Asia, and, for this reason alone, it is quite likely that American growers will find it difficult to produce low-grade teas at a cost equal to that of Oriental production. It is claimed, however, by those interested, and reasonably so, that the greater cost of free American labor is, in a measure, equalised by its superiority to Oriental labor; a superiority which is proved by its ability to pick more leaf in a given time than the ordinary run of Eastern labor. It is true that, with the well known inventive genius of Americans, machinery will, eventually, be produced that will materially reduce the cost of manufacture, and offset, in this manner, the greater cost—if such is, in reality, the case—of leaf-plucking, for it would appear to be improbable that a machine could be invented to pluck leaves successfully.*

On the other hand, should American growers, owing to the greater cost of labor, be unable to produce low-grade leaf at a competitive price, it will by no means endanger the future of the industry, for the time will surely come when the American consumer will learn to esteem the health-giving beverage and insist upon receiving an article of merit from the retailer in place of the cheap, trashy, carelessly made leaf, which so

*A machine especially designed for leaf-plucking has already been invented and tried in India, but, according to accounts, it has been abandoned as impracticable.

many dealers, unfortunately, insist upon purchasing in order to enhance their profits.

At Pinehurst the leaf is plucked by negro children, whose well being, both educational and otherwise, is cared for upon the plantation. To them the labor is particularly agreeable and much less arduous than that of cotton-picking, and it is said that the wage paid to them runs from thirty to fifty cents a day; a remuneration from five to ten times greater than that received by the Asiatic for a similar labor. Leaf-plucking at Pinehurst is conducted in a cleanly and scientific manner. The children, thoroughly trained to the work, go from bush to bush and nip off the tender stems, or shoots, just below the third leaf, and each stem, with its three appending leaves, is deposited in a picking-basket which is conveniently slung over the shoulder. The pickers are careful in their work; do not allow the leaves to pack tightly in the baskets for fear of over-heating, which would result, after manufacture, in an undesirable "red-leaf," and, for a similar reason, are not permitted to collect in large quantities. When a basket contains the stipulated amount of leaf it is immediately taken to the factory, where a careful examination of its contents takes place, and all objectionable leaf rejected. It is then weighed in and spread out upon a cool, clean wooden or cement floor, or on trays, to await manipulation. A good picker will gather from 30 to 40 lbs. of green leaf during a day's work, when the plants are "flushing" well. This quantity will return $7\frac{1}{2}$ to 10 lbs. of manufactured tea, for it takes four lbs. of green leaf to produce one lb. of tea. (In China an expert picker can gather not to exceed fifteen pounds a day for the plants will not yield more than one to two ounces at a picking and thrive.)

Of the three tender leaves plucked with each "flush," as the shoots are called, the tiny, unexpanded end leaf-bud returns the "Pekoe-tip," or "Flowery Pekoe," of commerce; the sec-

ond leaf from the end is made into "Orange Pekoe," so called on account of the orange-colored leaf-tips it shows when manufactured, and not, as is erroneously supposed, because of an orange-flavor, for such a flavor is not present; and the third leaf into "Pekoe;" commercial terms which exactly designate the age, and, therefore, the grade of leaf; following the Indian system of grading. Immediately below the third, or "Pekoe," leaf upon each shoot, two larger and maturer leaves grow which are known as the first and second Souchong leaves, and, should the season and the demand so warrant, these Souchong leaves are taken with the shoot if sufficiently tender. Careful husbandry furnishes the bushes with a means to sustain healthy life and a vigorous reaction immediately sets in within each plant to repair the trifling hurt occasioned by the plucking of the shoots, which is, in reality, a stimulus to luxuriant "flushing" as the putting forth of new shoots is called.

Of the several varieties of the plant under cultivation at Pinehurst those of Indian origin are the most prolific, and, from the bushes of these kinds, twenty, or more, pluckings are made during a season, or about one every ten days. The bushes of the Chinese, Formosan and Japanese varieties permit of fewer pickings although they thrive very well and are being planted extensively. Although, upon its face, it would appear to be a much more profitable undertaking for future American growers to raise plants of the more productive Indian, to the exclusion of the less productive Chinese, Formosan and Japanese kinds, it is to be hoped, for the sake of appreciative American tea-drinkers, as well as for the future welfare of the industry, that growers will not be induced to make such a serious mistake. American consumers are not generally prepared to accept the heavy bodied beverage resulting from the infusion of Indian, Indian-Hybrid, or Ceylon leaf, so that, although the harvest of leaves may not be so great, a readier market at remunerative prices may be ex-

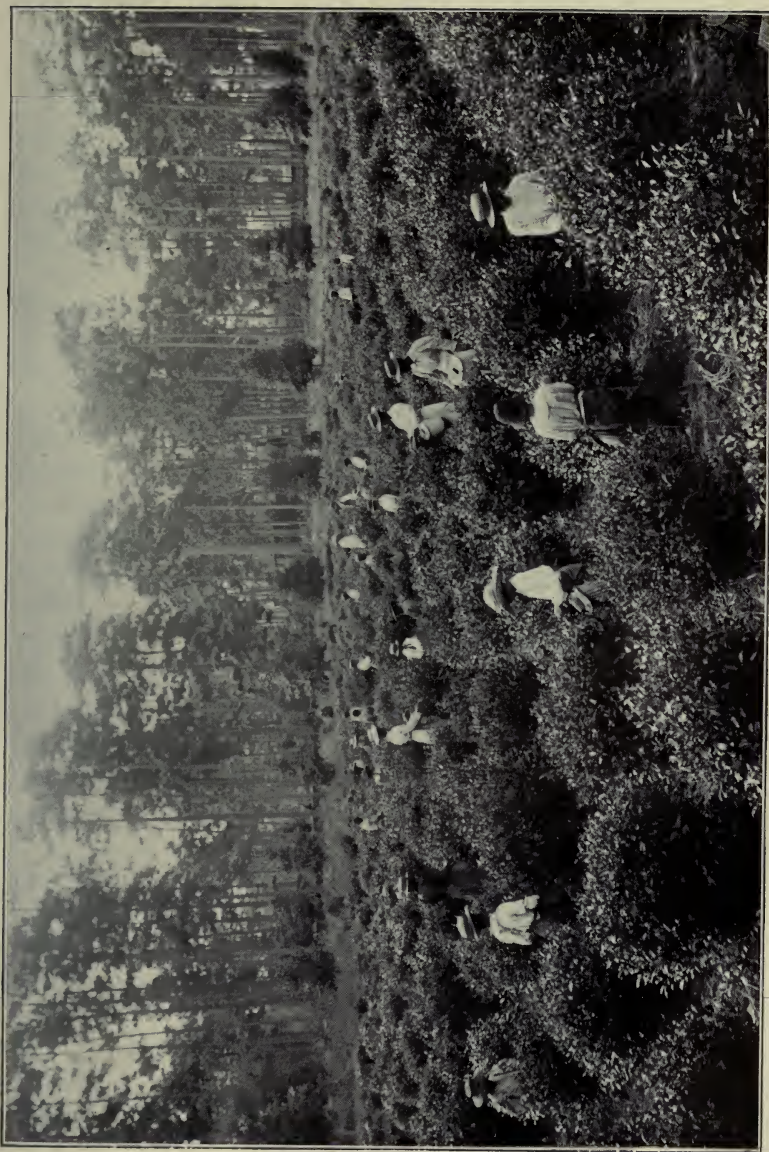


Photo From Life.

PICKING TEA LEAVES AT PINEHURST, SOUTH CAROLINA.

pected for teas manufactured from the lighter liquoring and much more pleasing Chinese, Formosan and Japanese kinds.

The quality of prepared tea produced at Pinehurst is said to be exceptionally good. Black teas, so-called English Breakfast teas, Green teas and Ooloongs, have been manufactured and sold to the trade in various parts of the country, and words of praise returned.

According to Mr. Hobbs, the editor of "*Tea, Coffee and Sugar*" the teas "*are a delight to the eye in point of style, and their cup qualities prove and justify the praise that the tea has received in not a few quarters.*"

It is said that Dr. Shepard numbers among other appreciative consumers of his tea, several members of an Oriental Legation at Washington, D. C. If such is the case, no stronger testimony as to the quality of the production could be asked, for no better judges of the drinking qualities of tea are to be found than these Oriental gentlemen. At a meeting of the Cabinet in the Autumn of 1901, the Secretary of Agriculture, under whose protecting hand the Pinehurst Plantation has grown, said, in speaking of the cultivation of tea in the United States, that "*the green tea grown in South Carolina is as good as any grown in the world.*"

Although the opinion of the writer may not count for much when measured with that of men more competent to judge, he feels justified in stating that he has examined samples of both black and green Pinehurst teas in a commercial way, and has found them to be well made, of good liquor, strength and flavor, and, accordingly, he has no hesitancy whatever in recommending retailers to place them in stock when offered.

"The green color of the infusion of Pinehurst green tea," writes Dr. Shepard in his report to the Government, "has attracted keen interest in the trade and among consum-

ers. Oriental teas," he continues, "can hardly furnish the like in this country."

Asiatic teas, intended for export, are subjected to a course of heavy "firing" in order that the leaf may not deteriorate during a long ocean voyage. This heavy "fire" imparts a metallic or "raspy" flavor to the infusion in a greater or lesser degree according to grade, as well as an unnatural color to the liquor, the like of which is not met with *or expected* in countries where teas are made. Unfortunately the "raspiness" which heavy firing induces has come to be looked upon in this country as an evidence of quality, and, with many consumers, a tea without the expected "raspiness"—or strength as it is thought to be—is likely to be condemned. It is not necessary for American teas to be highly fired, for they have, *as yet*, no ocean voyage to withstand, hence the flavors of the infusion and the colors of the liquor are exactly as they should be; *as they are in Oriental countries; the true tea-flavor and color, uninjured by a heavy "fire."*

Albert B. Prescott, Professor of Organic and Applied Chemistry in the University of Michigan, in an article entitled "The Chemistry of Coffee and Tea," 1882, says: "The processes of manufacture in China and India are necessarily modified to enable the tea to bear sea transportation without injury, and it must be accepted that *the finest tea can only be obtained in tea-growing lands.*"

The success which has attended Dr. Shepard's experiment has, already, been the means of inducing others, in several parts of the Southern States, to invest capital in similar undertakings, in one instance, at least, upon an extensive and business-like scale, and this fact alone should be sufficient to silence forever the adverse reports of those who are inclined to judge hastily, or unfairly, or to speak, or write, disparagingly of an infant industry. A year or two ago a corporation known as "The American Tea

Growing Company of South Carolina," of which Colonel Aug. C. Tyler is President and Major Roswell D. Trimble, Vice-President and Manager, embarked in the business of tea-planting and manufacture, and chose lands at Rantowles, Colleton County, S. C., in the vicinity of Pinehurst, as the scene of its operations. This company now owns 6,500 acres of contiguous rice-lands, the whole of which it intends to prepare for the purpose of planting tea-shrubs.

This year, 1902, the nurseries of the company cover two and one-half acres of land and contain about one million and a half growing nurslings; enough to plant about 300 acres. These nurslings have been raised on the ground from seeds imported from China, Japan, Formosa, India, and Ceylon and, at the present time, about 100 acres have been planted from the nurseries and are under cultivation to the several varieties of the above mentioned kinds. Within the next two or three years it is promised that between 1,000 and 2,000 acres will be in leaf-bearing, and in such a case, and should no unforeseen calamity intervene, the American public may expect to find "American tea" supplanting much of that of foreign growth in many of the stores and homes of Americans.

In several widely separated sections of the South experiments are being, and will be undertaken in a systematic and practical way. As a result much enthusiasm is manifest over the probabilities of a new and profitable industry arising, and it is expected that, in the near future, many estates will be laid out to tea-culture on lands that have been proved to possess the necessary qualifications.

It will, of course, be several years before American growers will be in a position to supply the full demand of American consumers for American teas, for, as already stated, it takes time for the plants to reach the age of maximum productiveness.

In the meantime it is quite likely that much adverse criticism will be indulged in.

Antagonistic reports and hostile opinions are to be expected. Such were extremely bitter in England during the infancy of the tea-industry in India and Ceylon, but planters, and the public generally, may rest assured that reports of the kind will emanate solely from opposedly interested sources. The American retailer will do well to test and judge American teas for himself, for he may take it for granted that the time is not very far off when this home-grown article will become an important factor in the tea-trade of the United States. Already the representatives of Asiatic tea-growing countries are studying the probabilities of American competition in American markets; reviewing the situation and reporting, at length, to their home countries; striking evidences that it is their intention to prepare for, and, if possible, anticipate whatever trade rivalry they may be called upon to face.

American dealers have much to gain by advertising and otherwise aiding and protecting the new American industry, for, outside of purely patriotic motives, their individual interests are concerned, inasmuch as these are identical with those of any industry that will keep the money spent for labor and the profits of the trade at home.

An import duty on tea would do much to aid the cause and strengthen the hands of planters, but, until American growers are in a position to supply the full demand of consumers, the imposition of such a tax would be hurtful to their interests, *because it would be looked upon as unjust*. Planters, during the earlier years of the industry, will find no difficulty in disposing of their entire output at profitable figures, so that, under present circumstances, it is difficult to perceive wherein an import duty would aid them. Under proper conditions a *protective duty* on tea would be for the benefit of the people as a whole, for not only would it protect the indus-

try and keep the trade and its profits at home, but it would, eventually, be the means of putting an end to the importation of inferior and very low grade leaf, the use of which does more to injure the cause of the healthful beverage than any other evil connected with the trade.

It is quite likely that the soil and climate of our lately acquired colonies, Hawaii and the Philippine Islands, will prove to be exceptionally favorable to the propagation of the tea-plant, and, if so, with the advantageous labor conditions existing in both, we may look forward to the time when the United States, as a great tea-producing nation, will enter into serious competition with China, Japan and the several British countries for a share of the tea-trade of the world.

CHAPTER II.

TEA FROM SEED TO LEAF.

BOTANICAL CLASSIFICATION.

Scientific men appear to be at some variance with regard to a proper botanical classification for the tea-shrub. Many scientists agree that it is a genus of evergreen shrubs of the natural order Ternstrœmiaceœ, closely allied to the genus *Camellia*, and, as such, is classed by Griffith as *Camellia theifera*, and by Linklater as *Camellia thea*. The great botanist, Linnæus, gives the tree a distinct classification as *Thea Chinensis* or *Sinensis*, and this classification is the more frequently accepted.

Davis, while differing with those who class it as a species of the camellia, informs us that with the Chinese "the camellia bears the same name with the tea-shrub and possesses most of its botanical characters."

Rein argues that "the relationship between these two plants (camellia and tea-shrub), from an economic point of view, is seen in a still greater degree by observing more closely the entire structure of both, especially with regard to blossoms and fruit, and is, in fact, so great that the tea-plant has come lately to be looked upon by many as only a particular species of the genus *camellia*, since there are no generic differences,—e. g., in Bentham and Hooper's "Genera Plantarum."

Davis, on the other hand, informs us that "they, in fact, constitute two genera very closely allied, the distinctions consisting principally in the seed. The seed-vessel of the tea-plant is a three-lobed capsule, with the lobes strongly marked, and each of them of the size of a black currant, containing

one round seed. When ripe, each of the three lobes bursts vertically in the middle and exposes the seed. The capsule of the *Camellia* is not lobular externally, but contains altogether three seeds, like that of the tea, though of longer shape," and Williams, who is of opinion that "there is probably only one species of the tea-plant, and all the varieties have resulted from culture," tells us that "the principal difference is in the thin leaf of the tea and the leathery, glabrous (smooth, hairless) leaf of the beautiful *Camellia Japonica*."

Dr. Shepard, whose recent practical experiences in the cultivation of tea-plants of all varieties in South Carolina should give his opinion weight, says: "Commercial tea is made from the leaves of the *Camellia Thea*. Formerly, when it was erroneously supposed that black and green teas were necessarily made from different plants, it was attempted to distinguish scientifically between the varieties used in the production of each; for, although either sort may be made from the same leaf, experience will show that each variety of the tea-plant is better adapted for the manufacture of the one or the other. Practically," he continues, "it is desirable to separate as distinct varieties the two most divergent types—viz., the Assamese and the Chinese—from the many intermediate sorts which have resulted from their hybridization or are the result of climatic and other influences upon them. It is claimed that the original tea-plant is indigenous to Assam, a province in north-eastern British India. * * * It is believed by many that all cultivated tea owes its origin to this source, and that when its utility to man was recognized it was thence carried to the north and east, even to the remote and chilly northern islands of Japan. The result of this climatic change was to stunt the plant and shrink the foliage to the small, dull-colored, lancet-shaped leaves characteristic of the variety generally (but with some injustice) called Chinese."

Walsh, on the other hand, after much investigation and deduction, inclines to the Linnæan theory, which, while recognizing the tea-plant as belonging to the *Camellia* family, classes it as *Thea Chinensis* or *Sinensis*, the tea-plant of China, which genus the theory divides into two species—viz., *Thea Viridis*, green tea, and *Thea Bohea*, black tea, to which may be added the later species, *Thea Assamensis* or *Thea Assamica*, Masters, the tea-plant of India.

CLIMATE.

The tea-plant may be grown in any fairly temperate climate, but it flourishes to the best advantage in the monsoon regions of South and South-eastern Asia, within the limits of which are situated the most extensive and famous tea-gardens of the world. Recent years have, however, demonstrated that the plant will thrive in other parts of the world; the success attending its cultivation in countries remote from its home, going far to prove that it will prosper in any part of the world where climate and soil are to be found akin to those of its native home.

Ball informs us that "The rainfall should not be less than 80 to 100 inches per annum," and Fortune insists that were it not for the frequent summer showers which fall copiously at the leaf-picking time in China, the repeated plucking of the leaves from the tea-bushes must be very injurious to their health. "The rains," he says, "cause the leaf-buds to burst out again with fresh vigor, and the bushes are soon covered with new leaves. After a careful consideration of this subject," he continues, "it seems plain to me that, however favorable the climate may be as regards temperature, and however good the soil and situation of the plantations may be, yet without these early summer rains it would not be pos-

sible to cultivate the tea-plant with success," that is, commercially.

Dr. Charles U. Shepard in an article written for the Florida Times-Union, published in 1897, says, in part: "It is generally held that certain natural conditions of climate are indispensable for the success of tea-culture. Among the former are a uniformly warm but not excessively hot temperature, one quite free from frosts, and an abundant rainfall, its copiousness being directly proportional to the intensity of the heat. To which supposed essentials may be added the necessity of a deep, rich, thoroughly drained soil, since the tea-plant requires the most abundant sustenance. It will be at once suggested that a great and apparently insuperable disparity exists in most of these prerequisites between the Oriental tea-countries and the Southern United States. It is true that almost all of the latter country is liable to frost and certainly by far the greater part to occasional ice; that the average rainfall is only half of that of India. * * * Nevertheless, there are, as we think, substantial reasons why tea should be extensively cultivated in this country."

"It is not necessary," Dr. Shepard continues, "that the annual rainfall should exceed 60 inches where the average temperature is less than 70 degrees F., especially if the greater part of the yearly precipitation occurs in the growing season. This is true of Japan, China, the higher altitudes of Ceylon, and some districts of India, where altogether the greater part of the world's tea is produced. And by a proper treatment of the soil, by underdrainage, subsoil plowing, and deep pulverization, a gain of moisture equivalent to a fall of 10 to 15 inches of rain is secured. This effect is enhanced by planting cowpeas between the tea-bushes, whose roots penetrate the soil, and dying not only leave valuable food for the tea, but render the earth much more porous and capable of retaining moisture during seasons of drought."

“There is probably no place in the United States where the rainfall is sufficient for the best results with the tea-plant,” Dr. Shepard tells us in his introduction to Report No. 61, 1899, to the Secretary of Agriculture, “and irrigation should, when possible, be provided for in growing tea.”

“The tea-plant can grow where the thermometer falls below the freezing point,” says Ball, and Rein tells us that “In the lower temperature belt for tea-culture, not only in northern China and Japan, but also in the Himalayas, the bushes are often exposed to frosts in Winter, which may be as severe as — 9° C., without killing them, but it cannot be too hot for the tea-plant if the heat is accompanied by moisture.” “The yield is double in a hot and moist climate,” Ball continues, “to what it is in a comparatively dry and temperate one, for it yields most abundantly with hot sunshine and showers and with the rain equally diffused.”

“Frosts and brief periods of cold curtail the production of tea,” Dr. Shepard wrote in 1897, “but some of the choicest brands, particularly those of great flavor, come from climates whose temperature often falls in Winter below 32 degrees F. A decided gain in quality compensates for a lesser yield in quantity.” Writing again in 1899, Dr. Shepard says: “Tea-growing can be undertaken safely only where the temperature rarely goes lower than 25 degrees F. and never below zero.”

During the Winter of 1898-99 the tea-plantation at Pinchurst, South Carolina, furnished conclusive proof of the extreme hardiness of the shrub, and the excessive cold to which the plants were then exposed went far to upset previously conceived theories as to the extent of cold the exotic could successfully withstand. “The past Winter,” Dr. Shepard writes, “has fortunately (for the sake of most conclusively testing the feasibility of the local cultivation of tea) subjected the gardens to an extraordinary ordeal, viz., the greatest cold in one hundred and fifty years—the fall of the ther-

mometer on the morning of February 14 to half a degree below zero F. Happily this occurred when the ground was covered to the depth of five inches with snow. It was observed that those plants which were in the most exposed situations suffered the least, having been brought by the previous cold weather into a state of hibernation which enabled them to withstand the extreme cold, whereas those which were in sheltered positions or in the most luxuriant growth suffered greatly in all parts above the snow level. The result was, that it was found necessary to rigorously prune back to within a few inches of the ground all of the bushes. * * * * On May 1 every clump of shorn roots was more or less covered with a thrifty outburst of young vegetation."

Thus it will be observed that the tea-plant, although originally from a subtropical climate, can endure extreme cold, and, under a correct treatment, will thrive in climates hitherto thought to be too rigorous.

SOIL.

Ball informs us that "though tea will grow in poor soil, it has been proved, by experiments in India, that the best soil for it is a friable, light-colored, porous one, with a fair proportion of sand and a superabundance of decaying vegetable matter on the surface."

Bohn says that "the soil in which the tea-plants are reared is a decomposition of granite, abounding in feldspar, as is proved by the same soil being used in the manufacture of porcelain." Thus, as Davis facetiously observes, "the soil produces the tea and the cups in which it is drunk."

Gorst informs us that the tea-plant "flourishes best in a sandy soil," and Fortune personally noted that "the soil of these plantations (Chinese) consisted of a red-colored loam mixed with a considerable portion of sand and gravel." The

reason for choosing this sandy, gravelly soil is obvious, for as Rein observes, "Atmospheric water flows off easily from gently inclined ground of this sort (sandy loam) without carrying away good earth." Davis saw the tea-shrubs succeeding best on the sides of mountains, where there is a small accumulation of vegetable soil. "We observed it always," he continues, "elevated above the plains, in situations where the soil was a disintegration of sandstone or of granite, or where the soil was composed partly of a micaceous sand."

"Select level land," says Dr. Shepard, "naturally moist, but free from stagnant water; the soil should be light and porous, rich in thoroughly decomposed organic matter, and as deep as possible. The subsoil should be self-draining and present no obstacle to the deep penetration of the taproot."

"Analyses of the best Indian tea-soils," he continues, "show a great deficiency of lime, an absence of sulphuric acid, the constant occurrence of manganese, and a large amount of nitrogen, as also considerable quantities of potash and magnesia micas. The best Chinese, Japanese and Javanese tea-soils are said to contain a great deal of ferruginous clay, and to be likewise deficient in lime. The high quality of the Formosa tea has been attributed to the large content of iron in the soil. At Pinehurst experiments have been conducted on sandy, clayey and bottom lands; on level fields, on hill-sides and in drained ponds, with the result that we earnestly recommend level lands thoroughly drained, porous to as great a depth as possible, and sweet, i. e., free from all virginal acidity. It was early recognized that none of our lands afforded sufficiently abundant and quick plant-food to stimulate and maintain that unusually luxuriant growth which is indispensable in a successful tea-garden. Consequently, all have received abundant enrichment." "The manures employed at Pinehurst are carefully preserved stable compost, (fortified with acid phosphate and kainit) wherever it can

be profitably utilized, and commercial fertilizers rich in soluble potash and available nitrogen, with a modicum of soluble phosphates. New land gets with us a heavy dressing of burned marl in advance of cultivation. The tea-plant demands the richest of food and plenty of it."

THE PLANT AND LEAF.

It is usual to refer to the tea-plant as an evergreen bush, shrub, or plant, because, under cultivation, its natural height is kept down by constant pruning or trimming, but in a state of nature it becomes a fair sized tree, reaching a height of from fifteen to eighteen feet, and, we are told that, in the jungle-forests of Assam, it grows to a height of thirty to forty feet. Under cultivation it is not allowed to exceed a height of from three to six feet, the constant trimming of its branches and plucking of its leaves causing it to flush out and put forth a greater number of bushy branches which run to breadth instead of to height, a result which is, of course, intended in order to facilitate the picking of the leaves, as well as to produce a more abundant harvest.

Williams informs us that in China "the plants seldom exceed three feet, most of them are half that height; straggling and full of twigs, often covered with lichens, but well hoed and clean around their roots."

The trimming of the plant is done in the colder part of the year, when the sap is at its least. This operation requires considerable skill and intelligence, and is a most important part of the business of tea-gardening.

"The wood of the tea-tree is hard and light-colored," says Rein, "and its stem puts forth many branches. Its bark is smooth, light ash-colored, resembling that of the beech. The bark of the younger branches is brownish in color. The leaves are persistent, short-stemmed and from elliptical to narrow

lanceolate, sharply serrated, with a bright, lasting, dark-green polish, covered, when young, with a white down or silken hair, which drops off in the course of development." This white down or silken hair is called by the Chinese "Pak-ho," hence the tea-term "Pekoe."

Williams informs us that "the tea-flower is small, single and white, has no smell and soon falls." Rein speaks of it as being "almost odorless" and Walsh reports that it is "slightly fragrant."

The fruit, according to Rein, "is a round, three-chambered, three-seeded capsule, looking as if it consisted of three balls partly pressed into one another, growing to one side." "The oily seeds," he continues, "enclosed in a hard shell, are spherical, as large as a cherry stone and the color of a hazel-nut." To the taste the tea-seed is oily and bitter. As already stated, the genus *Thea Sinensis* is divided into two species, viz.: *Thea Viridis* and *Thea Bohea*, to which may be added the so-called *Thea Assamensis*, or Indian species.

These species vary considerably in size and shape of leaf, blossom, and general characteristics, the variance creating the species.

Thea Viridis, or the Green Tea-plant, is, according to Rein, "a quick-growing bush, which is hardier than *Thea Bohea*. Its leaves are lanceolate, one to two inches long, with a breadth one-third as great. They have coarse, irregularly indented edges, often somewhat undulating, thin and of a light-green color. The blossoms, which are large, grow mostly singly." This species is mainly cultivated in the northern tea-districts of China and its leaves produce the China green teas of commerce, viz., Gunpowders, Young Hysons, Imperials, Hysons and Twankays.

Thea Bohea, or the Black Tea-plant, "remains much smaller," continues Rein. "It is more sensitive to the cold



THEA CHINENSIS—BRANCH OF JAPAN TEA PLANT.

than is *Th. Viridis*. Its branches and twigs are stiff, like its leaves, which are of an elongated, elliptical shape, scarcely half as long as those of *Th. Viridis*, and are smooth and regularly serrated. The bushes bloom luxuriantly, often having two or three blossoms at the base of each leaf."

Thea Bohea is cultivated in the central and southern tea-districts of China and its leaves produce the China black teas of commerce, viz., Congous, Souchongs, Ooloongs, Pekoes and Scented teas.

Thea Assamensis (*Assamica*, Masters) is the species (some claim that it is not a species of, or even a true tea) which was discovered in 1826 growing apparently wild in the forests of upper Assam. "When cultivated it is a beautiful little tree. Compared with the Chinese varieties its leaves are very large, elliptically pointed, from three to five inches in length and half as broad, smooth and strongly veined." *Thea Assamensis* is much more productive than either of the Chinese species and, in consequence, the Indian tea-growers obtain many more pickings than are obtained from the Chinese or Japanese plants.

"*The Hybrid*, or cross between the Assam plant and the tea-plant of China, which is now much grown in India, combines the richness in leaf-production and the strength in infusion of the Indian type, with the compactness, hardness and pleasant aroma of the Chinese."

The Japanese are indebted to the Chinese for the introduction of the tea-plant to Japan, which event, we are told, took place more than a thousand years ago. After its introduction it seems that the cultivation was neglected and its use practically abandoned. In the thirteenth century seeds were again imported from China, and soon afterwards the use of the beverage received royal patronage and became national.

The preparation of the leaf in Japan is somewhat dif-

ferent to the Chinese method, although in result it is the same. All, or nearly all Japan teas are green, and, strange as it may appear, the plants are of the *Thea Bohea* or Black tea species.

Rein in his "Industries of Japan" writes as follows: "Almost all Japanese tea is green, though coming from several varieties of low-trimmed *Bohea* bushes. I have scarcely anywhere seen (in Japan) the form *Thea Viridis*."

The seeds and plants, therefore, which were originally imported by the Japanese from China must have been of the *Thea Bohea* species, and the fact that the Japanese produce a green tea from a supposedly black tea-plant is a seeming paradox. In explanation of this it may be said that the kind and color of commercial tea is a matter of manufacture only. A manipulator can, at will, produce a green or a black tea from either species of the plant, and, further, he can, *if desired*, produce from the leaves of one and the same plant, a Gunpowder tea, a Congbu, a Souchong, an Ooolong or a Japan green. In further explanation and to correct an erroneous popular belief, a quotation from Fortune's "Tea Districts of China" will go far towards making the matter explicit.

He says: "The plant in cultivation about Canton, from which Canton teas are made, is known to botanists as the *Thea Bohea*, while the northern variety, found in the green tea-country, has been called *Thea Viridis*. The first appears to have been named upon the supposition that all the black teas of the Bohea Mountains were obtained from this species (*Thea Bohea*) and the second was called *Viridis* because it furnished the green teas of commerce. These names seem to have misled the public, and hence many persons, until a few years back, firmly believed that black tea could be made only from *Thea Bohea*, and green tea only from *Thea Viridis*." "In my 'Wanderings in China,'" he continues, "I made

some observations upon the plants from which tea is made in different parts of China. While I acknowledged that the Canton plant, known to botanists as *Thea Bohea*, appeared distinct from the more northern one called *Thea Viridis*, I endeavored to show that both green and black teas could be made from either, and that the difference in the appearance of these teas, in so far as color was concerned, depended upon manipulation and upon that only.

It is quite true that the Chinese rarely make the two kinds of tea (green and black) in one district, but this is more for the sake of convenience and from custom than for any other reason. The workmen, too, generally make that kind of tea best with which they have had most practice. But while this is generally the case in the great tea-districts, there are some exceptions. It is now well known that the fine Moning districts near the Poyang Lake, and which are daily rising in importance on account of the superior character of their *black* teas, formerly produced nothing else but *green* teas. At Canton, green and black teas are made from the *Thea Bohea* at the pleasure of the manufacturer and according to demand."

Mr. Lettsom also understood this subject as Mr. Fortune did. In his "Natural History of the Tea-Tree," published in 1799, he says:

"There is only one species of this plant, for the difference between green and Bohea (black) tea depends on the nature of the soil, the cultivation and the method of drying the leaves. It has even been observed that a green tea-tree planted in the Bohea district will yield Bohea (black) tea, and likewise the contrary."

Mr. Williams in his excellent work, "The Middle Kingdom," is just as explicit upon this subject. He says: "While the leaves of each species of the shrub can be cured into either green or black tea, the workmen in one district are

able, by practice, to produce one kind in a superior style and quality; those in another region will do better with another kind. Soil, too, has a great influence, as it has in grape-culture, in modifying the produce."

It will be seen, therefore, that the color and kind of tea produced depends upon its manipulation, but that convenience, ancient custom, and, of more importance still, the fitness of the leaf itself, confines the green and black districts to distinctive localities.

The tea-plant or tree is exceedingly long-lived and, if allowed to grow undisturbed by man, will thrive for several hundred years. Some of the very finest Japan leaf is picked from bushes which are said to be over two hundred years old, the young leaves of these old trees being eagerly sought in Japan. At the old Middleton Barony on the Ashley River, some fifteen miles from Charleston, South Carolina, there is still growing a healthy tea-tree which was brought from China in the year 1800. Today this tree is 102 years old, is some fifteen feet in height, and still flourishing.

CULTIVATION AND PICKING.

CHINA.—Throughout the tea-districts of China the tea-plants are raised from seeds, which are annually gathered from the shrubs in October, after the last crop of leaves has been harvested. Great care is exercised in protecting the seeds during the succeeding Winter months, so that they may be fresh and possess life in the Spring. After gathering, the seeds are exposed to the warm rays of the sun until every suspicion of dampness is evaporated; then they are carefully packed in sand and earth, where they remain until planting time arrives in the Spring. Before planting they are placed to soak in cold water for twenty-four hours, and, after this,

they are deposited in cloth bags and placed in a warm room where they become gradually dry. This process of aiding nature, or rather forcing it, is continued until the seeds begin to sprout, when they are planted in a nursery and carefully watched, watered, and tended until the resulting nurslings are large and strong enough to be transplanted to the tea-garden. This usually takes place when the nurslings are about one year old, and are about nine to twelve inches in height. In some parts of China, according to recent accounts, the young plants are transplanted at a more youthful age; when about four inches high. This, however, could only occur in parts of the country where the climate is mild enough to permit early transplantation. When planted out in the tea-gardens the young plants are always given plenty of space to bush out, being set out in rows about four feet apart, several plants being set together in each hole. The space between rows is usually three to four feet wide, which gives ample room for the pickers of the leaves to move along, and for the shrubs to spread. As is natural, the young plantations are started in the Spring, in anticipation of the abundant rainfall which is usual in those regions at the change of the Monsoon in April and May.

After transplantation little labor is expended upon the young plants; a beneficent sunshine and plenteous rainfall giving health and vigor to the entire plantation, and aiding the young plants to thoroughly establish themselves in their new quarters. The ground around the roots is kept free from weeds, but, with this exception, until the time arrives for the first picking of the leaves, no labor, of consequence, is necessary.

The native Chinese are, naturally, expert gardeners, and, consequently, are careful in plucking the leaves when the time arrives for that operation. To strip a plant entirely of its leaves would be the means of destroying its life; to strip

it carelessly, too frequently, or unduly would be very prejudicial to its health; so not only are the farmer-growers exceedingly careful as to the quantity of leaves culled from a plant, but they are careful, also, that the plant is in a strong and vigorous condition before they commence picking its leaves at all.

“The young plantations are generally allowed to grow unmolested for from two to three years,” says Mr. Fortune, “or until they are well established and are producing strong and vigorous shoots; it would be considered very bad management to begin to pluck the leaves until this is the case. Even when the plantations were in full bearing I observed that the natives never took many leaves from the weaker plants, and sometimes passed them altogether, in order that their growth might not be checked.”

The length of life of a cultivated tea-shrub depends altogether upon circumstances. A garden, with careful treatment, will continue to yield for from eight to twelve years; after that age, the constant picking deprives the plant of further vigor, and it becomes unproductive of the kind of leaves that are commercially valuable; then it is removed to make place for younger plants of its kind.

Great care is taken by the Chinese in picking the leaves; only one leaf from each stalk being removed, so that an expert picker can gather not to exceed ten to fifteen pounds a day. Fifteen pounds of leaves a day, indeed, is considered exceptionally good picking, for which the pay equals about eight cents, American. A tea-plant will yield from one to two ounces of green leaves at a picking, according to the size, age, and vigor of the plant, and when the various processes, to which the green leaves are subjected in their preparation for market, are completed, the shrinkage equals about four-fifths of the green weight, thus giving a manufactured product of one-fifth the weight of the unmanufactured leaves.

Extreme care is also taken in handling the leaves during the process of picking, notwithstanding the reports of interested persons to the contrary. CLEANLINESS IS ABSOLUTE, and, in fact, is necessary in order to prevent the leaves from absorbing obnoxious foreign flavors, which would undoubtedly result were careless or uncleanly hands allowed to touch them. Gloves are worn during the pickings, and the pickers are forced to bathe several times daily during the picking season. Women and children only are employed and it is said that they are forced to abstain from eating strong-flavored or uncleanly food during the entire picking season for the aforesaid reason. The bamboo baskets into which the green leaves are deposited as they are picked, receive as much cleanly care as the pickers themselves, so that the entire operation is, above all else, cleanly. This extreme care in the handling of the product costs the farmer nothing, and is, naturally, to his advantage, for no one knows better than he that the renown of his production, and, consequently, the price that he will obtain for it, depends absolutely upon its quality and condition. The reputation of his crop is much to the native farmer, who aspires to become known as the producer of the best teas in his vicinity. This engenders a friendly rivalry among the growers and the result is, naturally, a pure, clean and healthful leaf.

Several pickings or crops occur during the season, usually three. The first takes place from the middle of April to the first week in May, according to season, when the youngest leaves only are taken. These young leaves, so full of delicate sap, form the best of the farmer's crop, and receive, at his hands, more careful handling than those of succeeding crops, for the extremest care is necessary in order to prevent damage to the tender leaves and leaf-buds, which are much more liable to injury than are the older and stronger leaves of subsequent pickings. The second picking or crop occurs

about the first of June and gives to the farmer his largest leaf-harvest, although inferior in quality to the first. Less care is exercised in the picking of the second crop and more leaves are culled than at the first picking, but just as much care is taken in the matter of cleanliness.

The third picking occurs in July and affords a further heavy yield if the season is propitious, but is of a greatly inferior quality.

As each picking proceeds the leaves are partially cured by the farmer and stored to await the coming of the tea-men or buyers, who are sent throughout the country districts by the tea-merchants in the larger cities of the districts to purchase the crops of farmers. The teas of the vicinity are, by this means, gathered together to the large local cities and there treated as described in a following chapter entitled "Tea From Leaf to Cup."

JAPAN.—The native Japanese are, like their kinsfolk, the Chinese, expert gardeners and are very capable of cultivating the tea-plant to the very best advantage. As in China the plants are raised from seed, although many of the farmers utilize the public nurseries from which growing tea-plants may be purchased.

The seeds are sown in the fall of the year, immediately after the pickings are completed, or else in the Spring of the succeeding year.

Tea-seeds easily lose their reproductive power, a heavy proportion proving defective. For this reason great care is exercised in preserving those that are held over from the time of gathering in the Fall until planting time in the Spring, which is done, as in China, by keeping them in a cool place, in a mixture of sand and earth.

The garden spot having been well worked and manured in the early Spring is then ready to receive the seeds which

are planted in rows and covered with a few inches of soil. In two months the seeds begin to sprout; the plants are several inches high at the end of the first year; throw out side shoots the second year and are ready for the first picking with the third or fourth year.

In order to obtain bushy plantations many plants are planted in one hole so that they may unite and form one cluster, for it has been discovered that the production is greater when the plants are set out close together, and the method affords more room for the workmen to move around the plants and to keep the ground freer of weeds.

While it is by no means the general rule, it frequently happens that a farmer will allow for a considerable space between the rows of tea-plants, and cultivate crops of the tobacco-plant, vegetables, etc., in the intervening ground.

At three to four years of age the plants begin to produce and, with the succeeding years, the crop increases until the tenth or twelfth year, after which the yearly pickings steadily decline in quantity and quality, and at the age of fifteen to eighteen years the plant has outlived its usefulness as a commercial producer and is rooted out to make place for others.

In Japan, as in China, three annual pickings occur, the first beginning in the last week of April or the first week of May, according to the season, and lasting for from two to three weeks. This first crop produces Japan's highest grade teas, a heavy proportion of which is retained for home consumption. At the manufacturing and shipping ports of Yokohama and Kobe, the advent of the picking season inaugurates a period of great activity, which lasts until the shipments of the latest crop teas have been made abroad.

At the "turn of the leaf," that is for a very short period between the first and second pickings, a small crop is harvested, and this leaf is very distinctive, having a peculiar

orange, or somewhat like an Ooolong flavor. By some buyers in this country this leaf is sought on account of its flavor. The second crop or picking occurs from four to six weeks after the first; that is from the first to the fifteenth of June. This crop, like that of China, is quite heavy and constitutes the bulk of teas for exportation.

The third crop is harvested in July or August, but it frequently happens that this crop remains unpicked, for the reason that the second crop usually produces a sufficiency of medium and low grade teas to supply the foreign and domestic demand. A third picking is also likely to injure the shrubs and, for this reason, the farmers prefer not to pick it except in exceptional seasons.

INDIA.—As already stated, the tea-plantations of India and Ceylon differ very materially from those of China and Japan. It is simply the difference between the old-fashioned methods of a very conservative people and the business-like system of a progressive nation of manufacturers.

The tea-estates of India and Ceylon are usually owned and operated by British stock companies. In such a case, capital is unlimited for the purpose and the plantations are, from their inauguration, laid out and conducted in a wholesale way. No risk of failure is taken, for a thorough knowledge of every condition has, from past experiences, been gained by the planters.

After the land has been selected, the jungle-trees and underbrush are cleared so that an open space of 200 to 500 acres, or more, is obtained. Here the factory is erected and the business of growing and manufacturing tea is commenced, every detail of which, both present and future, being superintended by experienced and well-paid Europeans.

The seeds are obtained and sowed in nurseries upon the grounds, where they remain until the resulting young plants

have reached a height of from 10 to 18 inches, which is usually about six months after sowing. The nurslings are then planted in the gardens in long parallel rows about four feet apart. These rows usually run as straight across the plantation as the nature of the surface ground will permit, and at a distance of about four feet one from the other. This disposition of the rows of nurslings allows plenty of room for the spreading or bushing out of the shrubs when grown and gives space enough between rows, and around bushes, for the cultivators and pickers to work. After the nurslings have been transplanted and placed in position they remain untouched for about a year, the soil about their roots, in the meantime, receiving every attention necessary in the way of hoeing, weeding and irrigating. At the end of this probation period the plants have attained the age of about eighteen months, and are then considered old and vigorous enough to have their branches trimmed or "pruned," as it is called. The object of pruning is to cause the shrub to bush out and to prevent it from growing too high to enable the pickers to pluck its topmost shoots or twigs. At the age of from two to three years the bushes are old enough to pluck, and in the month of April, following the time that this age has been reached, the plucking commences.

The method of plucking the leaves in India and Ceylon differs very materially from the same operation in China and Japan. During the first picking in the latter countries but few leaves are picked from each plant and these are none but the youngest and tenderest end leaves, but, during the subsequent pickings, as many of the leaves as the shrub can safely give up are taken. In India and Ceylon *the three topmost leaves, at most, of each shoot or twig are plucked at each plucking*; the remainder of the leaves being allowed to stay upon the bushes, as they are considered too coarse to be made into commercial tea. In China and Japan three annual

pickings, at most, are obtained, and each of these pickings returns leaf that is commercially inferior to that of the preceding picking. In India from twelve to twenty pluckings are obtained from the bushes annually; estates that are more favorably situated, as far as climate and water supply are concerned, obtaining the greater number. In Ceylon between twenty and thirty pluckings are annually obtained owing to the extremely favorable climatic conditions which exist in the island. The Indian system of plucking is the result of a greater scientific knowledge; of a greater care in encouraging productiveness, and these not only preserve the health and vigor of the bushes, but make the labor much less arduous and reduce it to a minimum cost.

Much care is exercised in India in the plucking operation so that no injury shall occur to the plants. Women and children only are employed in the work, and these go carefully around the bushes and along the rows, snipping the twig or "flush," as it is called, immediately below the second or third leaf, according to the grade of manufactured leaf required. If fine and medium teas only are wanted, the twig, with the end-bud and the next two delicate leaves attached is taken, and this shoot or twig, with its two leaves and end leaf-bud appending, is spoken of and generally known in the tea-districts as a "two and a bud."

When coarse teas are required at the factory, orders are given to pluck the shoot below the third leaf, which gives three leaves and a bud, the third leaf giving the required coarse leaf for a coarser and cheaper tea. The native overseers, called "Sirdars" in India, and "Kangani" in Ceylon, are held responsible, at headquarters, for the proper plucking of each flush, and are required to see that no leaf coarser than wanted is taken.

As the pickers proceed they deposit the shoots in the picking-basket, and the leaves remain unseparated from the



AN INDIAN "FLUSH," SHOWING METHOD OF PLUCKING.

- A — Flowery Orange-Pekoe Leaf Buds.
- B — Orange-Pekoe Leaf.
- C — Pekoe No. 1 Leaf.
- D — Souchong Leaf and Broken Teas.
- E — Where the "Flush" is Plucked.

stem until after firing, when they are separated by machine and make the several gradings.

The picking-basket, called a "tukri," is a large, open-mouthed affair, two feet or thereabouts in diameter and about two and a half feet in depth, tapering towards the bottom. The basket is conveniently slung over the shoulder of the picker, so that every care may be taken in depositing the twigs, for tight pressing or jamming the leaves into the basket must be avoided. Should it occur, it will result in overheating, especially if the day be unusually hot, and produce, after wilting, an inferior quality of leaf called "red-leaf."

The plucking of the twigs of the shrub does no material damage, and Nature immediately steps in to repair the trifling hurt, and a week later another sprig is ready for the plucking, and so it continues throughout the long period of an Indian tea-picking season.

In India and Ceylon "first flush" teas, as the pickings of the earlier months are called, are usually inferior to the flushes of later months, it being claimed that Nature, in the earlier months, has not had time to mature within the leaves those constituents which are necessary to give to the leaf its full strength and flavor. This is totally opposed to the conditions which exist in both China and Japan, where the first pickings of the season produce the highest grade teas, nevertheless it is a well-known fact that Indian and Ceylon teas of the later pluckings are much superior in cup qualities to those of the earlier pickings.

It is claimed by the planters that the plucking is the only operation, under their system, where the leaf is touched by hand and much stress is laid upon the fact, but, be this as it may, it cannot be truthfully said that greater cleanliness is exercised by their native pickers than is practiced by the pickers of China and Japan. A machine especially built for the purpose of plucking the leaves, provided that it could be

designed to do the work thoroughly and well, would be of untold value to the British planters. Such a machine has already been invented and tried in India, but, according to the account of Mr. Crole, it has not proved to be practicable.

"The form of mechanical plucker," he says in his "Text Book of Tea-Planting and Manufacture," Lockwood, London, 1897, "that I have seen used was like a pair of shears, the upper surfaces of the blades of which had a rim about a couple of inches in height running around them, the object of which was to prevent the leaves cut off at each clip from falling off. The bushes had to be very carefully pruned before submitting to the machine so as to give flat surface. Although one would be only too glad to welcome any successful invention in this line, yet one must, I fear, reluctantly confess that it does not seem possible for any feasible device to be forthcoming."

In Ceylon the cultivation of the shrub and the plucking of its leaves is carried on in much the same manner as in India, but, owing to the sub-tropical climate and superior conditions of soil of that favored island, which gives to its planters a greater advantage, more pluckings are obtained annually than in India. The plucking season in Ceylon never ceases except during the "pruning" months, which operation prevents the "flushing" of the branches.

In the trade parlance of both India and Ceylon the putting forth of new shoots by the shrubs is called "flushing," and the young shoot or twig itself is known as a "flush." The quantity of twigs taken as the result of a day's plucking is also called a "flush," and the bulk of manufactured tea collected at the termination of each season of plucking is called a "break;" the term "break" meaning the same as the word "chop" with the Chinese, that is, the collective product of a given period of plucking. The plants "flush" weekly, that

is, put forth new shoots about one week after the plucking of the previous "flush" or shoot.

The terms "picking" and "plucking" are, practically speaking, synonymous; meaning, of course, the forcible removal of a leaf or twig. In India and Ceylon, where shoots are taken from the bushes instead of single leaves, the word "plucking" is in more general use, whereas in speaking of the same operation by the Chinese and Japanese, who remove one leaf at a time, the word "picking" is generally used. The difference in meaning of the two words, if a difference can be found, correctly describes the difference in the operations—one plucks a twig and picks a leaf.

After plucking the various processes of manufacture immediately take place in their order, and a description of these will be attempted in a subsequent chapter.

CHAPTER III.

TEA FROM LEAF TO CUP.

Given the discovery of virtue in a green leaf; virtue as a medicine, as a beverage, as a commercial commodity and the preservation of that leaf becomes a necessity.

Here, in a nutshell, we have the problem which must have confronted the people of China at the time when they discovered the valuable properties of the leaf of the tea-plant, and there can be little or no doubt but that this interesting people, after realizing that some process was necessary to preserve the leaves from one season to another, originated the method which, with modifications and improvements, is followed by all of the tea-producing countries of the world today.

The honor of having made the discovery of the virtues of the tea-plant, undoubtedly, belongs to the Chinese people, and to China, also, belongs the honor of originating and introducing the preservative method which has made a commercial tea possible.

It is, of course, very probable that the original methods which the Chinese adopted for the preservation of the leaf were crude, and that the practical experience of many years was necessary to enable them to reach the present perfection of the art; but, be that as it may, there can be but little doubt that the Chinese have followed their present methods for many centuries, for so very old is the industry with them, if we are to believe their ancient and modern chroniclers, that at the time the Israelites were curing bricks, with and without straw, for their Egyptian task-masters, the Chinese were

curing tea-leaves for their mandarins, for their neighbors, and for themselves.

Manufactured tea, therefore, is one of the very oldest of the world's commercial commodities, and it is quite likely to hold its place, as such, until the end of time.

The methods which are employed by the manufacturers of commercial tea in the various tea-growing countries, follow, in principle at least, the original methods as demonstrated by the Chinese.

In Japan, where the curing and preparing for export is done mainly by Americans and Europeans, who employ native hand-labor and some machinery, improvements of practical value have been instituted; while the British tea-manufacturer of India, Ceylon and elsewhere, in his effort to cheapen the cost of production, and in his craze for an article, as much as possible, untouched by hand, has invented steam-power machinery to do the same work that is done in China by man-power. In both cases a similar result is attained; in the one case by the means of hard hand-labor, in the other by means of steam-power machinery which has been invented in order that a saving in labor may be made.

After picking, as already stated, the process of manufacture is similar in all of the tea-producing countries. First comes the wilting, or withering of the leaves; then the evaporating of superficial moisture and superfluous sap; then the fermentation—or oxidation, as it really is—then the rolling and firing; separating and grading; all of which require experience, watchfulness, and great care.

To the process of manufacture is due the various kinds and colors of commercial tea. It produces the Chinese Gunpowder, the Japanese Sun-Cured, the Formosa Ooloong, and the Indian Pekoe. The tea-leaf which the Chinese manufacturer made into a round-rolled green Gunpowder, might, by a difference in manipulation, have been, just as easily, made by

him into a long-rolled black Congou or folded Pouchong, and the European manufacturer in Japan who decided to make the leaves submitted to him into a Sun-Cured, could have, as readily, used them to produce a Basket-Fired, or a Pan-Fired tea.

Local custom, and the life-long experience of the workmen in China, and the characteristics or the suitability of the leaf in Japan regulate the production of the kinds; while in India and Ceylon, with trifling exceptions so far, all leaves are converted into black teas.

LEAF PREPARATION.

CHINA—Owing to the vast extent of Chinese territory, and to the exceedingly crude and slow methods of transportation which exist therein, it becomes necessary that an initiatory preparation of the leaves be made by the farmer-grower. This preparation is, however, just sufficient to preserve the leaves against deterioration, injury, or ruin during the journey to the “hongs,” or firing establishments of the larger cities of the tea-districts, where they are prepared for market.

Man-power is used, as a rule, in this transportation; each coolie, so employed, carrying one basket of the higher grade leaf, or two baskets of the lower grades, and he proceeds steadily towards his destination at a shuffling jog-trot, balancing the baskets on both ends of a long bamboo pole, the center of which rests upon his shoulder, in like manner as we see his kind peddling vegetables and other wares in this country.

In this initiatory preparation the leaves, as they are brought in by the pickers, are spread out on flat bamboo trays, or on lengths of Chinese matting, and placed in such a position in the sunshine that they quickly wilt or wither, and all superficial moisture is evaporated.

After the wilting process has been completed, the leaves are gathered up, placed in a receptacle suitable for the purpose and any remaining moisture, together with a considerable percentage of the sap, is *expressed under pressure*.

A digression, at this particular point, becomes necessary in order to discuss and, if possible, correct an accusation of uncleanness in the Chinese method of pressing out the sap; which accusation is sometimes used in the advertisements of interested persons.

With regard to the method of this pressure, writers on the subject *apparently* differ. Dr. John H. Gray, Archdeacon of Hong Kong, in his work entitled "China," published in 1878, states that the leaves are "then trodden by labourers to press out all moisture remaining." Mr. Harold E. Gorst in his "China," 1899, says: "After the leaves have been assorted and the moisture pressed out of them by treading with the *naked feet*" * * * *

Mr. Joseph M. Walsh, in his "Tea, Its History and Mystery," 1892, and which, by the way, is the most authentic and exhaustive work ever published upon the subject, says: "The partially withered leaves are packed in cotton bags, loosely tied at the mouth and placed in open wooden troughs or boxes perforated at the sides with numerous holes, *in which they are pressed and kneaded by the feet to expel all superfluous moisture.*"

In point of fact, there is nothing in the description of Dr. Gray, or in that of Mr. Gorst, to warrant the assumption that the bare feet of the laborers *come in contact with the tea-leaves*, although a cursory reading of either description might convey such a meaning. Dr. Gray says that the leaves are "trodden by laborers." He might have gone further in his description and added that the leaves were first placed in cotton bags. Mr. Gorst, although stating that the *naked feet* are used in the operation, does not state that the feet come in

contact with the leaves, but it is not at all likely that the natives would use shoes on their feet when kneading cotton bags filled with leaves.

Again, the idea of using gloved hands, prohibiting the use of strong food, enforcing frequent bathing during the operation of picking the leaves, as has been described in a previous chapter, goes far to prove that the Chinese farmer is too great a master of his trade to make such a mistake, or to take such chances of injury to his product, as pressing the leaves with naked feet would mean.

The description of the process by Mr. Walsh is, undoubtedly, accurate, and it has never been refuted by authorities; neither can it be said that it differs from the descriptions of the aforesaid writers on the subject, except that it goes further into details, and, consequently, aids the cause of justice by repairing the damage inadvertently and, without doubt, innocently done to a cleanly and careful people by the meagre writings of others.

Unfortunately, in the printed advertisements of some tea-dealers, advantage has been taken of these meagre descriptions, and statements have been spread broadcast over this and other countries, in which charges have been made of uncleanliness in Chinese methods of manufacture.

Such advertisements go to show how eagerly interested persons will grasp at the incomplete descriptions of authors and craftily turn the natural inference of them to an unholy advantage, for it cannot be otherwise than expected that the distributors of such unjust and unwarrantable statements knowingly base them upon the inadequate accounts of eminent men which afford apparent proof and protection.

Pardon is requested for this lengthy digression which has been made solely in the interest of justice and fair play, and in the endeavor to protect a people apparently unwilling to protect itself.

To continue: After a sufficiency of the sap has been expressed from the leaves, they are again exposed to the sun-heat to dry, and when this is accomplished they are subjected to a partial "firing" by being held in iron pans over a charcoal fire until the leaves have reached that condition which will permit of transportation to the hong.

The work of the farmer-grower is now complete, and the tea is stored to await the arrival of an agent from one of the hong. These agents, locally known as "tea-men," travel throughout the district in the interest of their employers, visiting all the small towns, villages, farms, and temples for the purpose of purchasing the partially prepared tea-leaves from the monks, priests, and farmers.

The reason for the above described mode of semi-preparation is, as already stated, to prevent deterioration, or possible injury, during transportation to the hong, and also to deliver the teas thereat in such a condition that no difficulty will be experienced by the hong owners or manufacturers in making up the teas as they desire for the greater home and shipping markets. The wilting of the leaves, the pressing out of the superfluous moisture and sap, and the subsequent partial firing, prevents a natural chemical re-action—oxidation—from taking place, and the semi-prepared leaves consequently reach the firing establishment in a condition which permits of further manipulation.

Arrived at the hong, which is one of many large establishments capable of preparing many hundreds or thousands of chests of tea, the collective product of the district is mixed, due care being exercised in separating the various qualities of leaf, after which the teas are prepared for market and in the following manner:

GREEN TEA.—Upon arrival from the gardens the leaves, destined to be made into green tea, are first picked over and

all stalks and decayed leaves thrown out. The leaves are then spread out sparsely upon flat trays made of bamboo in order to evaporate any moisture which may have gathered, for it must be remembered that, during the curing season, there is considerable humidity in the atmosphere. The leaves are allowed to remain exposed in this manner for from one to two hours, according to the state of the weather, after which they are ready to be "fired."

This process, like all others connected with the manufacture of tea, requires experience and care, for to fire or roast the leaves imperfectly will materially hurt them and render the batch subject to a very low price or possible rejection by the buyers in the tea-exporting marts.

In China the leaves are fired after a somewhat primitive fashion. A number of small fire places are built upon the ground; brick and mortar being used in their construction, and are so arranged in circular form that shallow iron roasting pans will fit snugly on top. Each fire place is attended by an operator whose mouth and nostrils are covered with a cloth to prevent breathing the rising vapor. A charcoal fire is lighted beneath and, when the roasting pans are hot enough, a specified quantity of the leaves is thrown into them, and is then, as Mr. Fortune says, "rapidly moved about and shaken up with both hands. They are immediately affected by the heat, begin to make a crackling noise, and become quite moist and flaccid, while, at the same time, they give out a considerable portion of vapor." They remain in the pans for four or five minutes, rapidly shaken the while by the operator, whose experienced eye can detect the exact moment for removal, and, when that moment comes, he quickly gathers them up and places them on the rolling table close at hand.

From the time that the leaves are deposited in the pans until the subsequent rolling process is completed, no time is lost by the operators, who, being trained and expert at the



NATIVE TEA FIRING IN CHINA.

work, do not waste a single arm movement. The rolling table is made of rattan and fashioned so as to assist the rolling process as much as possible. At the moment that the batch of heated leaves is deposited upon the table—and it must be remembered that the leaves are in a moist and flabby condition, the essential oil and water, both component parts of the leaf, being brought out by the few minutes' heating—it is seized by the first of a number of consecutive rolling operators who quickly separates a double handful from the wet and sticky mass and passes the remainder on to his fellow workmen who, in turn, do likewise. Then, by a peculiar, sinuous motion of the hands, very much like the motion used in kneading bread-dough, the operators roll their bunches of leaves upon the table and each bunch quickly assumes a spherical shape, the object being, at once, to express a portion of the sap and moisture, and to give the required "roll" or twist to the leaves. The sphere-like bunches of leaves are repeatedly shaken out upon the table, gathered together, and rolled again, and are passed from operator to operator at the table, receiving a similar treatment at the hands of each in transit. At last the batches reach the head of the table, where the foreman examines each lot carefully and notes if the leaves have been properly curled.

During the rolling process new lots of leaves reach the rolling table fresh from the firing-pans, so that the work goes on until the entire batch is completed. As the foreman or headman passes judgment upon the batches which reach him, they are removed from the table and shaken out thoroughly upon flat trays, where they remain until the balance of the work is completed, unless too long a period of time elapses, in which case the leaves are taken to the pans for another roasting, after having been fanned to induce quick cooling.

The object of the first firing is to reduce the leaves to such a condition that they can be readily rolled, curled or

twisted into the requisite shape which designates the kind. The rolling process forces the leaves to assume those particular forms which we are accustomed to see; for example, the round rolled Gunpowder and the long rolled Young Hyson.

After being allowed to cool upon the trays, the leaves, which have now assumed their round and long rolled shape, are, for the second time, thrown into the roasting pans, and, over a slow and steady fire, are stirred rapidly in the pans by the hands of the operators for an hour or more. The object of this second roasting is, at once, to quickly dry out the rolled leaves—or tea, as it might now be called—and to fix the color, for, after this second roasting, all danger of fermentation has passed, which would cause the leaves to turn black.

The leaves have now assumed their style of make; the second roasting has dried them to a dullish green color, but, as they stand, the various grades of Gunpowders, Imperials, Hysons, Young Hysons and Twankay are all mixed together, and in order to separate the kinds, and free the dust from the tea, winnowing and sieving is necessary.

After winnowing and sieving, which is done by the use of sieves of various sized meshes, the tea is fired for the third time, the better kinds, Imperials, Young Hysons, and Gunpowders, often going to the pans for the fourth, fifth and sixth time, and the coarser kinds, Hysons and Twankay, once more. The object of the third and further firing is to make sure that the color is permanently fixed at its now dull bluish-green, and to aid the tea the better to stand a long ocean voyage to foreign countries.

Before sieving, the entire batch of mixed kinds is known as a “chop,” which signifies a contract lot. After the kinds and grades have been sorted by sieving, shipped to and chested at the shipping port, the whole is known as a “Standard Invoice of Green Tea,” and is composed of the various gradings of Gunpowders, Imperials, Young Hysons, Hysons and Twan-

kay. This Standard Invoice is purchased as a whole, and at a given price for the whole, the various gradings of the several kinds being averaged by the purchaser for a selling cost. Tea prepared in this way is known to the Chinese as "*Luh-Cha*," that is, "green tea."

Another process of rolling the leaves in the preparation of Gunpowder teas is followed by the native manufacturers of Canton, and is undoubtedly of Cantonese origin. It is as follows: The leaves, after the first roasting, are packed tightly into cotton bags until the bags assume a spherical shape about the size of a foot-ball. These bags of leaves are rolled and tossed about by coolies who use their feet in the process, resting their arms, the while, on cross beams in the room. A prolonged tossing and rolling of the bag causes the leaves within to assume the pellet shape of Gunpowder tea, and, as they become more compact, the bag loosens and has to be re-tied. Again the tossing and rolling is repeated until, eventually, the leaves within have become perfectly globose. The tea is then separated by means of sieves into the different sizes of Gunpowder and, after this, it is again subjected to the firing process which is final.

It will be noted from the first description of the curing process, that the various green teas of commerce, viz.: Gunpowder, Imperial, Young Hyson, etc., are produced from the same batch of leaves, at the same time of manufacture, and by the same process. The difference in the size and shape of the manufactured leaf is caused by the difference in size of the raw leaves, and by the curl or roll which individual leaves can be made to, or do, assume during the operation; some of them coming from the rolling table in the tightly rolled pellet form of Gunpowder; others in the larger roll of Imperial, and others in the twisted form of Young Hyson, etc., the various sizes of the leaves producing the larger or the smaller kinds of tea.

In the matter of quality, district, climatic and daily

weather conditions, age of leaf, as well as care in manufacture play an important part. A chop of green teas manufactured in one district, although to the eye, throughout the various gradings of the chop, it may be identical with a chop from another district, or even from the same district, when submitted to a cup test may be superior or inferior. A chop of green teas, once manufactured, is what it is, and, in the purchasing marts, cup qualities, style, color, etc., determine its value. The next chop turned out by the same "hong," even from leaves of identical age, may be superior or inferior to the preceding chop. A little too much or too little fire, a little longer or shorter time on the rolling table, a little carelessness or extra care, or different weather at the time of manufacture, although doing little to alter the general appearance of the manufactured leaf, can do much in the matter of producing superior or inferior cup qualities. Great care, however, is exercised by the manufacturers in all that pertains to the production of as good an article as possible, for their "chop-mark" on the chests of tea is their trade-mark, and they, as a matter of course, do all in their power to protect it and hold their good name. The dealers at the great shipping marts, whose trade is with home merchants or foreign exporters, are very particular in the selection of country "chops," so that in order to please, and to obtain as good a price as possible for their product the "hong" owners find it to their interest to make their teas as perfectly as the season's leaf will permit. High-sounding and felicitous names are chosen by the city dealers for their chosen parcels, and, frequently, a particular parcel acquires a reputation upon the market that will cause it to be eagerly sought after for each successive season, so that failure upon the part of the hong owner to keep up the same standard of excellence from year to year would be the means of loss to him. Inferior and spurious teas are usually made to order, or to suit a certain anticipated market, and it is the

continued production of such teas that has been the means of causing China the loss of so much export trade.

The Chinese, as a people, are imaginative, and are particularly fond of opportune names, which, as a rule, are descriptive of the object named.

The names given by them to the different kinds of tea are derived, in most part, from the general appearance of the leaf before or after manufacture, from the name of the place or district of growth, or from a name or phrase descriptive of the season of picking.

GREEN TEA CLASSIFICATION.

China green teas are known to our commerce as *Gunpowder*, *Imperial*, *Young Hyson*, *Hyson*, *Hyson-Skin*, and *Twan-kay*.

GUNPOWDER TEA is known to the Chinese as Ma-chu, that is, "hemp pearl," or as Chu-cha, "pearl tea," and it is so called because of its supposed resemblance to the objects named, that is, pearls. Presumably it is called "Gunpowder" by the commercial world because of a fancied similarity in appearance, more especially in the higher, "shottier" grades, to the product it is named after.

IMPERIAL TEA is known to the Chinese as Ta-chu, that is, "great pearl," and as Chu-lan, "pearl-flower;" happy names which more correctly describe it than the name by which we know it. The Imperial family and nobles of China are said to be quite partial to this kind, and, for this reason, it is called "Imperial" by outside nations.

YOUNG HYSON TEA is known to the Chinese as Yu-t sien, which means "before the rains," and it is so called because,

originally, the leaf, from which the sort is made, was picked in the early Spring only, before the rains set in. Now Young Hyson teas are made before and after the rains. Another pretty term in use as a name for the sort is Mei-pien, "plum petals." Our term "Young Hyson" is, evidently, a corruption of the Chinese name.

HYSON TEA is known to the Chinese as Hi-chun, meaning "flourishing spring," and is, presumably, so called because of the fact that leaves plucked in the flourishing Spring, that is, when the Spring season is at its height, are, naturally, larger, and make up into a larger roll, in contra-distinction to the smaller roll into which Young Hyson is made "before the rains" in the early Spring. Our name for this kind is also a corruption of the Chinese name.

HYSON SKIN TEA is known to the Chinese as Pi-cha, that is, "skin-tea," and is, presumably, so called because it is the poorest kind of green tea; all that is left, in fact, from the other varieties after sifting; skin-tea in name as well as in fact. Our name for this kind is a translation of the Chinese name, Pi-cha, "skin tea," to which we have prefixed the word "Hyson-" Hyson-skin.

TWANKAY TEA is known to the Chinese as Twan-kay, meaning "beacon-brook," the name of a stream in the province of Che-Kiang, where, it is said, the sort was originally produced, hence the name for the kind. The terms "Hyson-skin" and "Twankay" are, however, used synonymously in the United States, and are applied, at will, to designate the very poorest sorts of China green teas of large, flat leaf.

The terms "Gunpowder," "Imperial," "Young Hyson," "Hyson," "Hyson-skin," and "Twankay" are used only to *describe the style of make of the leaf after it has been manu-*

factured, and these names for the several makes are qualified, in the tea-trade, by the names of the tea-districts where the leaf is grown.

In the tea-producing provinces of China there are numerous tea-districts, each one of which is more or less famous as a producer of high, medium, or poor class teas, and these districts give their names to all of the Gunpowders, Imperials, Young Hysons, and others that are grown and manufactured within their borders. For example: The well-known district Moyune—Chinese Mo-yuen—gives its name to all Gunpowders, Imperials, Young Hysons, Hysons, Hyson-skins, and Twankays grown in the Moyune district; hence we have Moyune Gunpowders, Moyune Imperials, Moyune Young Hysons, etc.

In addition to those of the Moyune district we have other district, and otherwise named green teas, more or less known to commerce. The best known kinds in the United States are those called Sung-los, Hoo-chows, Hy-chows, Fy-chows, Tien-kees, and others, to which may be added those known as Ping-sueys, Cantons and Country Greens, the three latter sorts being named for their peculiarities and not from districts. Thus we have Hoo-chow Gunpowders, Hoo-chow Imperials, etc., Hy-chow Gunpowders, Hy-chow Imperials, etc., Ping-suey Gunpowders, Imperials, etc., Canton and Country Green Gunpowders, etc.

To the tea-man these district terms, preceding the name of tea-makes, mean much. By them he is enabled to judge, approximately, as to quality, for he is well aware that the several districts produce teas that are far apart in point of intrinsic leaf-quality, and, therefore, in commercial value. Moyune teas, throughout their gradings, are, commercially speaking, superior to equal gradings of Hoo-chows; Hoo-chows to Hy-chows; and so on, down the line.

Green teas, in addition to being subject to district su-

periority or inferiority, are divided into grades within themselves. In the case of all Gunpowders and Imperials these gradings are known as "firsts" or "No. 1s;" "seconds" or "No. 2s;" "thirds" or "No. 3s." A first Gunpowder is an exceedingly fine rolled and regular leaf, frequently known as a "pin-head;" a second is not so closely rolled; and a third is usually quite loosely rolled. These gradings apply to Gunpowders of the several districts, so that we have first, second, and third Moyune Gunpowders; first, second, and third Hoo-chows, Ping-sueys, etc. In the case of an exceedingly handsome pin-head, of any district make, the grading "extra first," "extra sifted first," or "extra No. 1" is sometimes given, so that we frequently hear of an "extra first Moyune Gunpowder;" an "extra sifted first Ping-suey Gunpowder," etc. Moyune, Ping-suey, and other Imperial teas are similarly graded—a first, or No. 1, Imperial is a closely rolled, regularly formed leaf of the kind; a second, or No. 2, is more loosely rolled, and a third, or No. 3, is quite large and loosely rolled.

In the comparison of one district Gunpowder or Imperial with another in the several gradings a No. 1 Moyune Gunpowder will outrank a No. 1 Hoo-chow Gunpowder; a No. 2 Hoo-chow will, ordinarily, be superior to a No. 2 Hy-chow, and so forth. Young Hyson district teas take gradings of firsts, seconds, thirds, and fourths, or No. 1s, No. 2s, No. 3s, and No. 4s, and are either of the large, long, curly roll known as "Fong-mee," or of the small, curly roll known as Sow-mee. Fourth Moyune Young Hysons, sometimes called Cargo Young Hysons, are frequently foisted upon unsuspecting retailers as cheap Sun-Dried Japans, and are sometimes blended with other teas in order to cheapen them. Hyson and Twankay teas are graded as firsts and seconds—No. 1s and No. 2s. In reality, Twankays need no grading.

The quality of these gradings as far as drink, leaf, body, strength, and aroma are concerned, is qualified by the picking. A first picking tea will outrank one of the second picking; and a second picking tea is usually superior to one of the third picking. The regular commercial cup test must be employed to determine the quality or value of any tea.

Ping-suey, Canton, and Country Green Gunpowders, Young Hysons, and Imperials are well known in this country, and are preferred by many merchants on account of their lower cost and better style. The use of such green teas has done much to hurt the sale of those of higher drinking quality, and it is unfortunate that such a state of affairs should exist.

Ping-suey teas are called Mien-pan-cha, that is, "bastard tea," by the Chinese; and Canton teas are known to them as Tschaw-cha, that is "lie-tea." It is really a question if the former are made from the leaves of the true tea-plant, the fact that the Chinese themselves call the kind "bastard" teas going far to prove that they are made from the leaves of some other plant. In any event it would be better for merchants generally were they to handle the true green teas of China to the exclusion of Ping-sueys, for they would consult their ultimate best interests were they to do so.

Chinese green teas owe their color to the process of manufacture, which fixes it at a color very close to that of the original green of the leaf. Pans of iron are used in firing, as has been stated, and not of copper, as is sometimes supposed, so that the popular belief that *all* China green teas are artificially colored is by no means so in fact. Prior to the "United States Tea Act" of March 2nd, 1897, which prohibited the importation of impure teas, many "faced" teas, that is, artificially colored teas, particularly Ping-sueys and Cantons, entered the country, but the rigid enforcement of the

law, which the Government so wisely maintains, has rendered the importation of such teas impossible. Sophisticated Canton green teas are no longer allowed to enter the country. Before the Tea Act went into effect this villainous stuff was frequently met with. It was well named by the Chinese "lie-tea," for it was manufactured from spurious or from exhausted leaf, that is, leaf that had already been used, which had to be "doctored" with some kind of clay and then colored so that it would look like genuine tea.

The United States Tea Act has been a great boon to the tea drinkers of the country. Under its laws standards of quality have been established by the Government, below which no teas can enter. At the several ports of entry expert tea-men in the employ of the Government are stationed, and samples of all tea importations are critically examined by them. The so-called "Government Standard teas" are, therefore, the lowest grades of every kind that are allowed to enter.

Tea-dealers nowadays may be sure that, whatever kinds and grades they are handling, they are dispensing an article that is pure and perfectly fit for human consumption.

BLACK TEA.—The process of manufacture which produces the black teas of China is very marked in its difference with the process which produces the green teas of that country; the principal dissimilarity being in the fact that, during the curing process, all leaf intended to be made into black tea is allowed to oxidise, which gives to the product a black, brownish-black, or reddish-black color; while oxidation—or fermentation as it is usually called—is not permitted to take place with leaf intended to be made into green tea. Cut an apple in two pieces and a chemical reaction immediately sets in, resulting in a few hours, if exposed to the oxygen of the

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"THE PING-SUEY KING"



ORIGINAL PING-SUEY TEA PACKAGES.

Photo From Life by Mr. Alfred Adelsdorfer.

atmosphere, in a discoloration of the cut surfaces; first to a reddish-brown, and, in twenty-four hours, to a brownish-black. This is oxidation or fermentation, and it is this principle that is applied to the leaf in producing black teas. Fermentation is, of course, stopped before actual decay begins, and its application results in the production of a tea that is richer and mellower than, and of a different flavor to, the green sorts.

The leaves intended to be made into black tea undergo the same process of withering and pressing as those intended for the green varieties. Here, however, the similarity in the process ceases, and a parting in the ways, so to speak, occurs.

Black tea not only owes its color to the fermentation process, but its flavor and aroma are dependent upon the process, in a great measure, also. Its character depends upon the result of the process, hence it is of the greatest importance that it should be conducted with extreme care and watchfulness, for to stop the fermentation prematurely, or, on the other hand, to allow it to proceed too far, will, in either case, materially damage the commercial value of the product. The process of fermentation cannot be regulated by timing it, as one would boil an egg, for the conditions of atmosphere, weather and the state of the leaves are rarely identical. The workman, therefore, has nothing to guide his judgment save his experience, which alone will teach him to discern the exact moment at which to stop the progress of nature's onward march. Experience, therefore, is all important and, in fact, is absolutely necessary.

It must not be inferred from the above that fermentation is all that is necessary in the matter of producing quality in a black tea. Quality of leaf, like in other teas, is, of course, the greatest factor, but high grade leaf must be care-

fully prepared, otherwise its value will be materially injured.

Fermentation is attained by placing the leaves, as they come from the gardens, into baskets, or on bamboo frames, and then covering them with cloths. In this condition they are allowed to remain for many hours, oftentimes twenty-four or more; the length of time being regulated by the condition of the weather. To aid nature in the process the leaves are gathered up by the workmen and thrown into the air, which proceeding tends to separate them. After having been tossed up and down and thrown about for some time, and, at intervals, gently beaten with the hands, the leaves become soft and flabby, and in this condition they are thrown into heaps, where they remain for from one to several hours. Self-generated heat results, nature having been assisted in the process by the foregoing proceedings, and the leaves undergo a chemical reaction, in which the color changes from green to brown, and the fragrance peculiar to black tea is developed.

The first firing of the leaves then takes place, the process being identical with that of green teas. The leaves are placed in iron pans over the charcoal fire, roasted for about five minutes and are then deposited upon the rolling table and treated like the green teas.

After having been rolled the balls of leaves are separated and then scattered sparsely over sieves and exposed to the air for several hours in order to dry them. During this time the workmen continually turn the leaves and separate them one from the other. This airing process evaporates the greater portion of the moisture which has been developed by the first firing, and results in a very considerable loss of weight, and of bulk. After evaporating they are subjected to a second firing for from three to four minutes and are then taken out of the roasting pans and rolled upon the table as

before. Now comes the third firing which is done in baskets instead of in pans.

These baskets are made of rattan or split bamboo about three feet high and are shaped something like an hour-glass, wide at both ends and drawn in at the middle. A sieve is dropped into the basket which is held in place by the narrowed centre, and upon this sieve an inch deep of leaves is spread. The basket is hung over the charcoal fire with one of the wide ends down, and after five or six minutes of exposure to the heat, during which time the leaves are constantly watched and agitated with the hand, the basket is removed from the fire and the leaves are again emptied upon the rolling table where they receive their third rolling and twisting.

When this rolling is finished the leaves are pulled apart one from the other; spread on the basket sieve as before, and set over the fire for another short period; the rolling and firing being repeated, if necessary, until the correct shade of color is attained and fixed.

The leaves have, by this time, assumed the required color and the continued heating, rolling and twisting has given to them the requisite roll, curl, or twist, so that all that remains is to dry them perfectly by another firing, which results also in bringing out the black color more thoroughly and fixing it permanently. During this final firing the workman works his hands through the leaves in the sieve in order to allow the vapors to escape, and that the heat may permeate the mass of leaves equally, and thoroughly dry the whole.

After the leaves have cooled the work of manufacture is complete, and the result is the China black tea of commerce. The leaves are then spread out and carefully picked over in order to remove stems, bad leaves, etc.; sifted, so that the accumulated tea-dust, that has naturally broken

away from the edges of the leaves during the process of manufacture, may be taken out, and then packed for shipment to the greater tea-marts of the interior, or on the coast.

BLACK TEA CLASSIFICATION.

China black teas are known to our commerce as *Congous*, *Ooloongs*, *Souchongs*, *Pekoes*, *Orange Pekoes*, *Flowery Pekoes*, *Pouchongs*, *Capers* and other Scented teas.

CONGOU TEA is known to the Chinese as Kung-fu, that is, "labor," or "laboriously made," and it is so called because of the greater amount of labor, comparatively speaking, that is expended in the production of the kind. Our word "Congou"—sometimes spelled Congo—is a corruption of the Chinese name. Congou teas are frequently called "English Breakfast" or "English Breakfast Congou"—names by which they are known only in America. In England the term "English Breakfast" would not be understood. In this country the use of the term oftentimes leads to confusion, for Souchongs, Indias, and Ceylons might just as correctly be called English Breakfast teas, and frequently are. The initials "E. B." are used as an abbreviation for the words "English Breakfast;" for instance: "E. B. tea," which most frequently means a Congou tea, and "E. B. Congou" which describes itself.

OOLONG TEA is known to the Chinese as Ou-lo-ong, or Ou-loung, meaning "green dragon," and is so called because of the small yellowish-green leaf which intermingles with that of darker hue, in greater or lesser quantity according to grade. Our word "Ooloong," or "Oolong" is a corruption of the Chinese word.

SOUCHONG TEA is known to the Chinese as Sian-chung, meaning "little plant," or "little sort," and is so called because, it is said, the supply is not great. Our name for the kind is also a corruption of the Chinese word. Souchong teas are sometimes called E. B. Souchongs to distinguish them from the so-called E. B. Congous.

PEKOE TEA is known to the Chinese as Pak-ho, meaning "white hairs," and is so called because of the small white hairs, or down, that grow upon the young leaves that are made into the kind. Our name "Pekoe" or "Pecco" is derived from the Chinese word. Chinese Pekoe teas must not be confused with those of British and other makes of the same name, and known as "India Pekoe," "Ceylon Pekoe," "Java Pekoe" and others, for there is, indeed, no similarity. A China Pekoe tea is made from the very youngest end leaf-buds, and, after manufacture, the white hairs appear on the ends of the leaves, and present what is known as "silver tips." British and other country Pekoe teas are made from older and larger leaves, usually the second grading, and have, therefore, no resemblance to the Chinese kind. China Pekoe teas are usually classed as scented teas, but, like the Ooolong, it is rarely scented artificially, the perfume being inherent.

ORANGE PEKOE TEA is known to the Chinese as Shang-triang, meaning "most fragrant," and is so called because of the fragrant orange perfume that it emits both in the dry leaf and in the infusion. Orange Pekoe is artificially scented; fresh orange blossoms being used for the purpose in the higher grades. The lower grades are usually of some cheaper leaf, scented with the oil of orange, or with a cheaper substitute. Like the China Pekoe tea, Orange Pekoe must not be confused with those of British and other makes of the same name. India, Ceylon, Java, and other Orange Pekoe

teas are so called because of the orange colored tips that intermingle with the black leaves in greater or lesser quantity according to grade, and not because of an orange flavor or perfume, which is not present, as in the case of China Orange Pekoe. China Orange Pekoe tea is used exclusively for blending purposes, a small proportion imparting a delightful orange flavor to the blend when the higher grades are used. The lower grades are dangerous owing to the fact that the essential oils, used to flavor them, are liable to become rancid, and taint the blend.

FLOWERY PEKOE TEA is manufactured from youngest end leaf-buds, the white hairs of which suggest that it is made from the flowers of the tea-plant which is not the case. Flowery Pekoe is a scented tea and is used for blending purposes. Its use for such a purpose imparts flavor and style to the blend. India, Ceylon, Java, and other Flowery Pekoe teas, while made from a similar end leaf-bud, have no artificial scent, and, for this reason, must not be confused with those of China. They are sometimes silvery and sometimes golden in color.

POUCHONG TEAS are known to the Chinese as Pau-chung, or Pau-chong, meaning "folded sort," and are so called because the leaf is folded rather than rolled into shape. Pouchong teas are usually packed in paper packages, and some authorities claim that they are called "folded" or "wrapped sort" on this account. This kind is strongly scented and is used extensively by the native Chinese both at home and in America. It is to be found in most Chinese stores in this country packed in paper packages of one-eighth lb. each.

CAPER TEAS are known to the Chinese as He-chu-cha, meaning "black pearl tea" and are so called because of a sup-

posed resemblance to black pearls. Gunpowder tea is called chu-cha, meaning "pearl tea," and Caper tea, he-chu-cha, "black pearl tea," so that the latter is a black Gunpowder.

Our word "Caper" is derived from the supposed resemblance that the kind has to the flower-buds of the caper-bush, known to commerce as "capers."

The kind is artificially scented, and, while not in extensive use in this country, it is a favorite in England, where it is used for blending and for flavoring purposes.

In addition to the foregoing kinds of scented teas there are many others made in China which are rarely exported. For delicacy of flavor no teas approach those known in China as "Mandarin Teas," highly scented black teas, which, being slightly fired and rather damp when at their best for use, will neither keep nor bear transportation abroad. These teas are in great demand by the Mandarin and wealthy classes of Chinese, and bring extremely high prices upon the market, averaging between \$5 and \$10 per lb. Such teas are never exported.

The names given to China's black teas, viz., *Congou*, *Ooloong*, and *Souchong*, like the names of the green makes, describe the style of the make of the leaf after manufacture, and these names for the several makes are qualified, in the tea-trade, by the names of the tea-districts where the kinds are made.

In addition to the district name the shade of color of the manufactured leaves, and the individual appearance of the sorts, give special names to China black teas. For example: The well-known Moning Congou teas were originally so called because they were produced in the black-tea districts surrounding two towns called Ning and Wu-ning, from which words the term "Moning" is said to be derived. The term "Moning,"

however, is now used by the trade to designate all varieties of Congou teas that are of the so-called "*black leaf*" kind, in contradistinction to those commercially known as "Kaisow Congous" or the "*red leaf*" kind.

The individual sorts of both Moning and Kaisow Congous have distinguishing characteristics and distinguishing names by which they are usually known to the trade; and these numerous individual sorts are sub-divided into many grades. Congou teas are also known as "North China" and "South China" Congous, and there are many tea-men who prefer this system of classification.

Of the individual sorts of Moning, or black-leaf Congous, those known to the trade as *Ning-chow*, *Ly-ling*, *Oo-nan*, *Oon-fa*, *Oo-pak*, *Kee-mun*, *Kin-tuck*, *Pak-lin*, *Pak-lum* and *Ho-how* are the better known in America, England, and Russia. Each of these kinds has its characteristic style of leaf, color and draw, the characteristics being dependent upon the soil, climate and water supply of the several districts in which they are produced, as well as upon the care of manufacture.

Some of these varieties are much superior to others, Ning-chows, Ly-lings, Oon-fas, Kin-tucks and Kee-muns being considered the best varieties of Moning Congou teas.

Moning Congous include many makes and many shades of color. Some of the varieties are small and well-curved in leaf; others are of medium size of make, while others are bold and rough of leaf. The better grades of Ning-chows and Pak-lums frequently show the whitish ends called "Pekoe tips." The color of leaf of the Moning varieties ranges from a grayish-black to a silky, jetty black, a few varieties showing a tinge of red.

The various gradings of the individual sorts depend upon the quality of leaf, the age at picking, and upon the care bestowed in manufacture as well as upon the conditions of the weather at the time of manufacture. The style of leaf, and,

above all, the cup test, are the only means whereby the quality of the several grades of any individual sort may be determined.

Of the individual sorts of Kaisow, or red-leaf Congou, those known to the trade as *Ching-wo*, *Seu-moo*, *Kai-shan*, *Saryune*, *Suey-kut* and *So-how* are the better known in England and America; few, if any, Kaisow teas finding a market in Russia.

Kaisow Congou teas include many bold and rough makes as well as many that are small and closely twisted. The color of leaf is mostly reddish-brown in hue, those known as Saryunes being particularly red in color, comparatively speaking.

The province Fu-Kien is responsible for the production of most of the Kaisow varieties, the principal market for those grown in the northern districts of the province being Foo-chow, and, for this reason, the teas are extensively known as "Foo-chow Congous." The southern tea-districts of the province Fu-Kien send their product to the sea-port Amoy.

Other Congou teas are grown in various parts of China, those of the southern province of Kwang-tung being numerous, but, usually, of low grade. The best Congou of this province is the kind called Tay-shan. The leaves of this variety are long, wiry, and of a brownish-black color. Canton Congous, like Canton Gunpowders, are made, usually, from exhausted leaf and "doctored" in order that they may look well in the hand. Such goods are not now allowed to enter the United States.

The Ooloong teas of China are grown, mainly, in the districts of the province Fu-Kien, and derive their distinguishing names from the two large shipping ports of that province, Foo-chow and Amoy.

The kinds are known to commerce as *Foo-chows*, *Amoys*, *Pekoe-Ooloongs*, *Saryunes*, *Padraes*, and *Ankois*, and these individual kinds are subdivided into numerous grades.

The Ooloong teas grown in the island of Formosa, adjacent to the province Fu-Kien, and, while under Chinese rule, a part of that province, have increased in popularity in the markets of the United States to such an extent during the last twenty years or so, that fewer China Ooloongs are being exported each year. This may be accounted for by the persistive efforts of the Chinese to foist poorer leaf upon this market in spite of repeated warnings. We know that her manufacturers can produce the finest of Ooloong teas, for some of the higher grades are not infrequently met with in a few markets of this country, and the Russians do not appear to find it difficult to obtain the usual supply of Padrae-Ooloongs. While the better grades of China Ooloongs do not compare with similar gradings of Formosas, nor possess the particularly pleasing and indescribable Formosa aroma and flavor, the old-time, high-grade Foo-chow Ooloongs, with their rich, full-bodied, mellow infusion, are teas not easily surpassed. Few of such teas, however, are to be found in our markets now, a misfortune which is to be regretted, for, if we except the more aromatic Formosa, no teas of the kind ever made can be compared with the old-time favorite Foo-chows.

Foo-chow Ooloongs, like the green teas of China, are usually purchased in chops. These chops are divided into gradings known as "firsts," "seconds," "thirds," "fourths" and "fifths," each grading following in the order of quality as named.

Foo-chow Ooloongs vary considerably in general appearance; the higher grades being quite dark of leaf and well made; the medium grades are larger and more loosely twisted, while the poorer grades are quite large, coarse, and irregular in make.

Amoy Ooloongs comprise a number of district teas far apart in general appearance and quality. The better grades are of good looking leaf, quite light in color, and very different in general appearance to the lower grades, which are uncouth in make, and very dark in color. Being produced in widely separated districts of the province, these Ooloong teas are subjected to different methods of manufacture, as well as to different climatic influences, hence, the great difference in the general appearance of the leaf.

China Souchong teas, although similar in general appearance to Congou makes, are usually made from superior, that is younger leaf, and, in consequence, possess superior drinking qualities. In style they are not so well made, curled or twisted as Congous, but in cup qualities they are usually superior, the drink being considered of more importance than a stylish appearance. This class of tea is divided into several varieties and the varieties into many grades. Souchongs are known to the trade as "*Lapsings*," "*Padraes*," "*Pekoe-Souchongs*," and others.

Souchong teas vary in general appearance; those known as "*Lapsings*" or "*Foo-chow Souchongs*" being large of leaf, well made and good looking. *Padrae-Souchongs*, on the other hand, are smaller of leaf, blacker, and more like a Congou. *Pekoe-Souchongs* are larger and blacker than *Padraes*, but not so large as *Lapsings*. The name "*Pekoe-Souchong*" is given to this variety because of the "*pekoe*" or white tips showing on the leaves.

Souchong teas are not in general use in the markets of the United States. Some of the Eastern markets, however, favor them, and find them more satisfactory than the ordinary run of Congous, particularly for blending purposes.

China Souchong teas must not be confused with British made teas of the same name. In India and Ceylon the name

“Souchong” is given to leaf that is by no means equal to the Souchong leaf of China. India and Ceylon Souchong teas are usually of the third and fourth gradings of leaf, and are inferior to Flowery Pekoe, Orange Pekoe and Pekoe leaf.

LEAF PREPARATION.

JAPAN.—The teas produced in Japan are known to the outside commercial world as “*Pan-Fired*” or “*Regular Japan*,” “*Sun-Cured*” or “*Sun-Dried*,” “*Basket-Fired*” and “*Porcelain-Fired*,”—the latter a new name for a very old make—and from each of these kinds, *Nibs*, *Fannings*, *Siftings* and *Dusts* are taken.

These teas, although of different shades of color, are, in reality, all green teas, and, in style of make, general appearance and drinking qualities, are unlike the teas of any other country. As has already been stated, the Japanese manufacturers have repeatedly attempted to produce teas patterned after the Chinese black and green sorts; such as Congous, Ooolongs, Gunpowders, etc., but, so far, their efforts in this direction have met with indifferent success in point of quality, caused, no doubt, by the inadaptability of the leaf produced in Japan. No efforts, however, are being spared to make the manufacture of these other sorts a success, and it is very possible that, with the increasing foreign demand for black teas of the different kinds, success will eventually crown their efforts.

The terms used to designate the different kinds of Japan teas are indicative of the methods of European manufacture, and have little or nothing to do with native Japanese ideas of tea-manufacture. The terms “*Pan-Fired*,” “*Basket-Fired*,” “*Sun-Dried*” and “*Porcelain-Fired*” come to us, therefore, from the firing go-downs at Yokohama and Hiogo-Kobe which

are owned and operated by American and European manufacturers, who are responsible for the naming of the kinds, and the idea that these terms originated with the Japanese or are translations of Japanese names for the makes, is entirely erroneous.

The native Japanese tea-manufacturers originally knew, or rather adopted, but one method of tea-leaf preparation, which gives a result similar to that of basket-firing, although fired in a pan, and, to this day, all teas brought in from the country districts, for the purpose of sale to the European manufacturers, are prepared by the Japanese growers after their own particular method.

Although, in the condition in which it is sold to the Europeans native-leaf is thoroughly prepared for use and fit to brew, it is called "raw-leaf," and, from this so-called raw-leaf, the European go-down owners manufacture the various Japan kinds as they are known in this country.

Originally the only idea of the Europeans was to re-fire the prepared native-leaf in order that it might be better able to withstand the exigencies of an ocean voyage, and arrive at its destination in perfect condition for use. The possibilities, however, of introducing new makes or styles of leaf, were eventually suggested, and the result was the production of the Pan-Fired and Sun-Cured makes, lately followed by a new make in this country called "Porcelain-Fired."

In addition to the above-mentioned terms which are used to designate the kinds, the wholesale and importing trade is accustomed to apply the name of the port at which the teas are manufactured for export as a qualification of the kinds. Thus the teas grown in the country districts surrounding and tributary to the manufacturing sea-port, Hiogo-Kobe, are known as "Kobe Basket-Fireds," "Kobe Sun-Drieds," and "Kobe Pan-Fireds;" and the teas grown in the country districts tributary to the manufacturing sea-port, Yokohama, are

known as "Yokohama Basket-Fireds," "Yokohama Pan-Fireds," and "Yokohama Sun-Drieds."

The sea-port Nagasaki gives its name to the few teas exported from the southern island, Kiushui; and the sea-port Niigata names the product of the provinces of the Japan Sea, although the teas of these provinces are not often exported.

In speaking of the twin sea-port cities Hiogo-Kobe, it is customary to use either half of the hyphenated word, so that we hear the word "Hiogo" or the word "Kobe" used at will to designate Hiogo-Kobe leaf, the terms being synonymous as far as the above use is concerned.

The interior tea-growing districts of Japan are becoming much better known than formerly, and, as a result, individual district teas are becoming sufficiently well known to be called after their district of growth; a system of classification that is much more specific and, therefore, much more satisfactory than the old one of classing all teas, grown in the western districts as "Kobe teas" and all eastern grown teas as "Yokohama," inasmuch as such a system tends to individualize teas.

Many Japan tea-districts also have become notorious as producers of superior or of inferior leaf, as the case may be, or of leaf that possesses certain qualifications of style or of drink, so that the naming of the product of each district by the name of its district of growth would give a much better general idea of the character of its tea than the wholesale classification of many distinctive district teas under the name of Kobe or of Yokohama teas.

The best known Kobe teas are produced in the numerous tea-districts of the provinces of Yamashiro, Omi, Yamato, Iga, Ise, and others surrounding the Biwa Lake, but the most celebrated leaf is grown in Yamashiro, which province lends

its name to the product of many of the tea-districts within its borders.

The Uji tea-district in Yamashiro has been, for centuries, celebrated for the great superiority of its leaf, and, at home and abroad, Uji teas are recognized as of the finest of Japan's production. The highest grades of this leaf are rarely, if ever, shipped abroad; the demand of wealthy natives for the high-grade, shade-grown teas, which bring as high a price as ten dollars a pound, allowing none for export, even if a foreign market demanded the product. For the production of this rare Uji leaf many acres of high-class tea-land are enclosed by a frame-work of bamboo poles, over which matting is stretched in order to give a perfect shade from the hot rays of the sun, as well as a shelter from the winds and heavy rains which are common in April and May, during which months the plants are putting forth their young and tender leaf-buds. Many Uji teas, however, are exported to the United States, but these are merely standard grades from the unprotected gardens of the district.

Of the other provincial tea-districts which are tributary to Kobe little is known in this country, and although millions of pounds are produced annually by them, no particular district among them, except those specified, has made a name abroad, so that, by the trade, their combined product is known as Kobe tea. Teas produced in the Yamashiro province districts, on the other hand, are well known and quite popular in the United States, and the name "Yamashiro," so frequently seen printed upon tea-chest labels, is familiar in tea-trade circles.

The tea-producing districts tributary to the sea-port Yokohama are numerous, widely separated, and ever increasing. The best known to American importers are those of Hachioji—pronounced Hach-o-gee—Enshu, Kawane, Shizuoka, and Suruga, to which may be added the now celebrated leaf known

as Momikiri and Fujieda, and, of these, until quite recently, the leaf of Hachioji is, or was, the most celebrated.

For many years this famous little district produced a characteristic leaf which was admitted to be the finest of all Yokohama teas; and justly so, for, with the possible exception of the finer teas of the Uji district, no leaf of Japan has, so far, been able to surpass that of Hachioji. Unfortunately this leaf has, of late years, declined in quantity, but other districts of the same neighborhood are coming to the front with leaf of extraordinary quality—notably those of Kawane, Enshu, Shizuoka, Fujieda, and others—which bid fair to gain for themselves a reputation equal to that of Hachioji.

The country districts of the province Mino, and those that are tributary to Nagahama, Niigata and other cities of the far interior produce teas in large quantities, but mainly for home consumption. The leaf of the districts tributary to these cities, and usually named after them, is not considered quite suitable for manufacture into export teas, and, even were this not the case, their relatively greater distances from market would naturally cause a greater cost of transportation, and create prohibitive original costs.

Both Kobe and Yokohama teas are distinctive and characteristic, but it is not possible to say which are best, for each class has its admirers among tea-importers and tea-men, and so very much depends upon the way in which the raw-leaf is made and fired. Yokohama, however, is supposed to produce the best Basket-Fired teas; while many importers prefer Kobe Sun-Dried and Pan-Fired teas. It is a mere matter of taste, or of preference, however, for it frequently happens that a Kobe tea of equal grading will style or cup better than a Yokohama, and *vice versa*.

Nagasaki, the sea-port city of Kiushui, the most southerly island of the island Empire, gives its name abroad to the tea-product of that island. Nagasaki teas, although sometimes

met with in the markets of the United States, are not very popular. A large quantity of the leaf is produced all over the island, but the teas are mainly used for home consumption.

The preparation of the leaf in Japan differs somewhat from the process employed by the manufacturers of China, although the principles involved, and the results attained are virtually the same: for all preparatory methods are intended to accomplish the same end; that of preserving the leaf from one season to the other.

While the native Japanese method of preparation is complete enough to enable the teas to keep from one season to another in Japan, it is not sufficiently so to enable them to bear ocean transportation, so that, in order that the leaf may be hardened and preserved against dampness and change of climate, the European manufacturers of Hiogo-Kobe and Yokohama are compelled to heavily re-fire the native-made leaf, and, during this process, advantage is taken to add style in order to improve the uncouth appearance of the native product.

The native method of preparation is as follows: As soon after picking as possible all Japan leaf is steamed. This is accomplished in the following manner and for the following reasons:

A number of iron kettles or pans are enclosed in such a way that the steam will be prevented from escaping. The top or mouth of each pan is so arranged that a sieve may be placed tightly in it, and a cover then fits securely over all. The pans are half filled with cold water, and, underneath, a brisk charcoal fire is started. When the water begins to boil and the steam ascends, several handfuls of the green leaves are placed in the sieve and the cover fitted in place. The ris-

ing steam permeates the batch of leaves, and, for about a minute or less, is allowed to do so. Then the well-known odor of tea arises from the pans, and the steaming process is complete.

The object of steaming the leaves is, at once, to prevent oxidation, and to render them moist, soft, and pliable for the subsequent firing and rolling, the process serving the same purpose as the first short roasting of green teas by the Chinese.

The leaves are then taken out of the sieves, thoroughly shaken in order to separate them, and are spread on matting or on tables to cool. Cooling is aided by a vigorous fanning, for it is important that the leaves cool quickly in order that their pliancy may not be impaired as would be the case were they allowed to cool naturally. After the leaves are cooled they are ready for firing; a process which must be completed before the leaves lose their pliancy and become crisp, otherwise they would not twist.

The native method of firing tea-leaves is different from the methods employed by the European manufacturers of Japan, who use either baskets or iron pans. Fire-places are built up from the ground and these are covered with large pieces of matting which enclose the heat on all sides. Upon the top of the matting is placed an oblong shaped wooden trough with a sieve-like bottom, and into this trough the cooled leaves are placed. A banked charcoal fire beneath gives sufficient heat to affect the leaves, which are kept in continual motion by the operator. After the leaves have been sufficiently fired they are thrown out upon a piece of matting and rolled thereon by the hands of the operator until they assume their necessary twist or roll. Afterwards they are winnowed and sieved to separate the siftings, dust, and refuse; then packed into native wooden half-picul boxes, and are ready to be hauled to market for sale.

Upon arrival at the tea-mart the native-fired leaf is purchased by the European manufacturers, through native brok-

ers, at so much per picul— $133\frac{1}{3}$ lbs.—and, after delivery, each lot is graded and tested by the cupping process to determine its qualifications. The European expert then specifies by what process each lot shall be prepared for export, being governed in both the purchase of the leaf and the method of manufacture by the American orders which his firm may have on hand at the time of purchase.

The firing process by which the so-called “native raw-leaf” is prepared for export by the European go-down owners gives to each kind of Japan tea a distinguishing name; the name of the process of firing, in fact.

JAPAN TEA CLASSIFICATION.

BASKET-FIRED TEAS.—Basket firing is a simple operation, and produces, as the name implies, the teas so well known to American commerce as “Basket-Fired” and “Spider-Leg Japans.”

The higher grades of this kind are made from young, succulent leaves, which, owing to their extreme pliancy, are easily twisted into the long, dark-olive-green, wiry leaf, usually known as “Spider-Leg.” The medium grades are made from leaf of older growth; are less pliable and, consequently, are less tightly rolled when manufactured; while the lower grades are loosely rolled, owing to their greater age and lesser pliancy, and contain many large, flat, poorly made leaves of a lifeless color when not artificially “faced” or colored.

Basket-fired teas, like other Japan makes, are manufactured from either first, second or third pickings; those of the first crop or pickings being much superior in cupping qualities to second crop teas; and second crop to third. Second crop leaf, that is, leaf picked in mid-summer, produces leaf of excellent style, if the season is damp enough to give plentiful sap to the leaf, and, for this reason, is chosen, in prefer-

ence to first crop leaf, by those importers who depend upon style of leaf alone to sell their teas. Second and third crop teas cost, proportionately, less money than first crops owing to their inferior drinking qualities.

Basket-fired teas are frequently known as "Uncolored Japans," in contradistinction to the "Pan-Fired" or "Regular" makes, which are, as a rule, more heavily faced or colored. For the same reason Sun-Dried teas are sometimes known as "Uncolored Japans" and have, perhaps, a better right to the title than the Basket-fired makes.

The baskets used in firing Basket-fired teas are made of split bamboo, securely woven, open at both ends and shaped like huge dice-boxes. This basket is placed over a pan full of live coals, banked over with ashes, in order to prevent smoke from ascending and circulating through the leaves during the operation, as well as to allow a slow, steady heat. Into the top-end of the dice-box shaped basket, and above the fire, is tightly fitted a round, flat bamboo sieve, into which the tea-leaves are placed. The ascending heat, confined by the basket, permeates the mass of leaves, which curl and twist, and, shortly, become moist and pliable under its action. Each basket is served by a strong native man, almost naked, who repeatedly lifts the soft, moist leaves and lets them fall again, until they acquire a darker shade of color. When pliable enough he rubs and rolls the leaves gently between the palms of his hands; breaking up and scattering the bunches as they clog together; repeating the operation over and over again until the mass has assumed the required dark olive-green color, and the leaves are separated and have assumed the required twist or roll. During this process a small portion of powdered plumbago is sprinkled over the mass of leaves, the rubbing, rolling and heat causing it to spread evenly over the leaves to which it imparts a glossy appearance. Most Basket-fired teas are "*assisted*" in style by the use of plumbago or



Photo From Life.

A BASKET-FIRING "GO-DOWN" IN JAPAN.

other substance, but the proportion used is usually so trifling that it is not considered injurious.

After firing, the leaves are emptied from the baskets and allowed to cool and dry, when they become quite brittle; then they are winnowed and sieved in order to take out the accumulated nibs, siftings and dust, which, in turn, are sieved to separate them and to remove all stems, seed-capsules and other refuse. The tea, nibs, siftings and dust are then conveyed to the packing-room, where they are packed into half-chests, quarter-chests, boxes or packages of specified equal weight, and are then ready for export.

PAN-FIRED TEAS.—This make of Japan teas is frequently called “Regular Japan” to distinguish it from the Sun-dried kinds which are also fired in a pan.

In the manufacture of Pan-fired teas the leaves undergo a treatment quite similar to that which produces teas that are fired by the basket process, the difference being in the receptacle in which the firing is done.

A series of brick-work furnaces is built in long, regular rows across the go-down; sufficient space being allowed between each furnace for the operator to stand and work in. Upon the top of each of these furnaces, and directly over a banked charcoal fire beneath, is fixed a round iron pan, and in front of this pan the operator stands. The operators employed in pan-firing are usually native women and girls, for the work is not so arduous as that of basket-firing.

The pans are first warmed, and, at a given signal from the “comprador”—as the foreman is called, and these compradors are usually Chinamen—each operator immediately places her batch of leaves, usually about five pounds, into the pan in front. The work is then similar to that of basket-firing. The leaves, quickly becoming soft and moist, are kept in constant motion by the hands; then rubbed between the

palms and rolled against the smooth sides of the pan until the requisite roll or twist is attained, and the color of leaf is fixed. An artificial coloring matter, is sprinkled over the leaves during the process in order to assist the style, but, except in the case of exceptionally low grades, the quantity used is not great enough to be injurious. Before the passage of the United States Tea Act many low grade Pan-fired teas, heavily faced with Prussian blue, gypsum or kaolin, were found upon our markets, but such teas are now refused admittance by U. S. Government authorities. When perfectly dry the tea is taken out of the pans, spread out, sifted and sorted as before, and is then ready for the packing room.

SUN-DRIED TEAS.—The term “Sun-dried,” or “Sun-cured,” as applied to this make of Japan tea, is, in reality, a misnomer, although it would be difficult, under the circumstances, to decide upon a better term to fit the case. To the uninitiated the term might suggest that this class of tea was altogether prepared by drying or curing by the aid of sun-heat, but such is by no means the case. It is said that the term originated with a Chicago importer, at the time when the make first appeared upon the market, and, if such is the case, the gentleman is to be congratulated upon his choice of name.

Sun-dried teas, like all other Japan makes as we know them, are made from native-prepared leaf. This native-leaf, as it is brought in, is subjected to a steaming process in the European go-downs, and then partially dried in the sun—hence the name—and during this partial sun-drying the leaves undergo a very slight chemical change, approaching oxidation. Pan-firing, identical with the Pan-fired tea process, is then used to toast the teas and apply the twist or roll, after which the made teas are cooled, sifted and boxed for shipment.

Sun-dried teas, although of much more recent origin than

the other two Japan kinds, have made a steady progress in the markets of the United States, superseding the other makes in many sections. This class of tea is usually reliable and more regular, as a whole, in drinking qualities, and is, therefore, better adapted for winning and holding trade.

The kind is not infrequently known to the retail trade, and to consumers, as "Uncolored Japan" or "Natural Leaf," and were it not for the fact that the same terms are frequently, and with as much reason, applied to Basket-fired Japans, either one of these terms would be as appropriate as the terms "Sun-dried" or "Sun-cured," by which the make is known to commerce.

PORCELAIN-FIRED TEAS.—The name "Porcelain-fired" has been given to an old-fashioned make of tea, but one which is, comparatively speaking, new upon the American market, where it has been known but a few years. It would, indeed, be difficult to discover a good reason for the choice of such a name, but it will be safe to assume that it has been adopted for want of a better one to describe the make correctly. In appearance the teas do not resemble porcelain, nor is there anything about them to suggest the term. It would be absurd to suggest that porcelain-lined pans were used for the purpose of firing the teas, for, if such pans could be used, they would have no different effect upon the leaf, nor could their use be expected to do the work to better advantage than the regulation iron pans. The name "Porcelain-fired," therefore, is, presumably, given to the kind to distinguish it from other makes, and it may as well be taken in this sense until such time as a definition may be forthcoming from those who are responsible for the choice.

Porcelain-fired Japan teas are prepared after native methods, and, while having the general appearance of the Basket-fired kinds, are, in reality, re-fired in a pan. During

the process of re-firing no attempt is made to artificially color the leaf, so that this class of Japan tea is the only class exported that is really entitled to be called "Uncolored Japan."

While approaching the Basked-fired kinds in appearance, Porcelain-fired Japans are made like Sun-drieds, and in cup qualities are nearer to the latter than the former kinds. Cup quality is all that is expected in a Porcelain-fired tea, and even the lowest grades give good returns at the testing-table, very much better returns in the cup, indeed, than the style would indicate. The higher grades are made from sweet-drawing, flavory leaf of the best districts, and the drink of these comes nearer to the drink of good leaf, as expected in Japan, than that of any other kind. It is, of course, necessary to re-fire all tea-leaf destined for export trade, otherwise the teas would "go back" during a long voyage in a ship's damp hold, or deteriorate rapidly after reaching their destination. Porcelain-fired teas are re-fired as lightly as possible, so that the natural sweetness of the high-grade leaf is not so much impaired as it is in the case of other teas, but, for this reason, they should be used as quickly as possible after arrival, for they cannot be expected to possess the keeping qualities of higher fired teas. Many importing houses are making a specialty of Porcelain-fired Japans, which they usually pack in sealed packages of retailing size. This practice is commendable, for it assists in the keeping of the teas, a result which cannot be expected should the kind be exposed.

The leaf of the finer grades of Porcelain-fired teas is of medium length and fairly well twisted, but, inasmuch as less labor is expended upon it during the process of re-firing and rolling, than is expended upon equal cost teas of the Basket-fired kinds, and as no artificial coloring is used to aid appearance, the leaf does not look quite so stylish as that of the artificially assisted Basket-fired kinds. The medium grades are sometimes "crappy," that is, slightly curled at the ends,

and sometimes straight in leaf, while the poorer grades are open and flat, poorly twisted and irregular. In color these teas resemble Sun-drieds more than Basket-fireds although, on account of their longer leaf, they can the more readily be passed for the latter kinds, for which they are quite frequently sold. Taken as a whole, Porcelain-fired Japan teas have, so far, proved to be an eminently satisfactory sort, and where cup qualities are of more importance than a stylish appearance, these teas will hardly fail to please, and more particularly so in countries where the water, in which they are to be infused by consumers, is soft and pure.

JAPAN NIBS—is a term applied to the lumpy leaves which, during the process of manufacture, refuse to yield to the required twist or curl. Nibs are obtained from all kinds and grades of Japan teas, but in widely varying quantities. Thus we have “Basket-fired Nibs,” “Sun-dried Nibs,” and “Pan-fired Nibs,” each of the kinds being separated by sieving from the respective sorts after which they are named. During the firing process, and when the leaves are moist, leaf that contains a superabundance of sap or moisture cannot be forced to take the roll or twist required, inasmuch as the surplus sap gums up the leaf and causes it to assume irregular shapes. Such leaf, after separation, is called “Nibs,” and its shape is sometimes long and thick, but, more often, lumpy and round.

In grade Japan Nibs should be identical with the quality of leaf being manufactured at the time that they are obtained, and, in fact, the Nibs of the finer grades usually give excellent results in the cup, although it frequently happens that, owing to the greater quantity of sap or other moisture contained within the lumpy leaves, a much poorer quality of liquor is obtained. The medium and lower grades are usually sold for what they are in style and cup qualities, these

qualifications creating their market value. The style, or rather, lack of style, is responsible for their low cost grading in comparison with the regular kinds of teas from which they are separated, but, inasmuch as Nibs, as well as Siftings and Dusts, are looked upon by the manufacturers as so much loss of weight during manufacture, their value, at regular tea cost, is added to the cost of the tea from which they are taken, so that if freight, packing charges, insurance and other costs are obtained for them when sold, no loss is sustained.

Japan tea-nibs of the larger, lumpier kinds are frequently cut up by machine in order to produce a leaf of smaller size and more uniform appearance. Cut Nibs are sometimes mixed, in this country and in China, with Ping-suey Gunpowders, such mixing being done for the purpose of reducing costs. This practice, although it cannot be classed as anything short of sophistication, might well be tolerated, if not condoned, for the Japan Nibs, even if of a much lesser cost than the Gunpowder with which they are mixed and used to cheapen, are, at least, tea, and, as such, are much more healthful than the bastard Gunpowder which should need no cheapening.

FANNINGS, SIFTINGS, AND DUSTS are taken by the aid of a series of sieves from all kinds and grades of Japan teas. Fannings are the larger pieces of leaf broken off from whole leaves during the process of firing and rolling, and, in cup quality, if allowed to remain unmixed with the fannings of lower grade teas, are, naturally, equal to the teas from which they are obtained. Siftings are of medium coarseness, and Dusts are the smallest particles of broken tea-leaf so obtained.

At the go-downs these broken leaf teas are separated into lots, according to their several sizes of leaf, at the time that they are obtained from the various firings. The Siftings obtained from an individual firing, unless it be of an exception-

ally large lot of tea, are not sufficiently great in quantity, however, to pack up into a merchantable number of chests, hence, in order to produce a fairly large line or number of chests, a collection of Siftings is made from many firings, and mixed to give a stated quantity. Fannings and Dusts are treated in a similar manner, and are kept separate according to size of leaf. Care, however, is taken to prevent the mixture of first crop broken leaf tea with that of second crop, and the Fannings, Siftings and Dusts from the different makes of leaf are also kept and packed separately. Thus we have Pan-fired, Sun-dried and Basket-fired Fannings, Siftings and Dusts; and of these three kinds of broken leaf teas we have first crops, second crops and, sometimes, third crops.

In the case of importers placing orders with Japan manufacturers for various kinds of teas, and various gradings of each kind, the broken leaf of such orders is the property of the importer, inasmuch as its cost is figured in and added to the cost of the whole leaf teas—from which it is obtained. In such a case the collective broken leaf of the several firings is separated according to size of leaf, kind, and crop, and is boxed for shipment to the owner.

The loss in weight occasioned by the taking out of Nibs, Fannings, Siftings and Dusts is much greater in the cases of the Sun-dried and Pan-fired kinds than it is in the case of Basket-fireds. This heavier loss is caused by the greater breakage of leaf in the two former methods of preparation. In a cup test of Pan-fired, Sun-dried and Basket-fired Japans it will be noticed that the leaves of the two Pan-fired sorts are more broken than those of an average Basket-fired tea. While this greater breakage of leaf does no material damage to the drinking qualities of a tea—provided, of course, that the accruing siftings and dusts are removed—it naturally creates a heavier proportion of Siftings and Dust, and adds to the cost of preparation.

The following estimate of loss in weight by firing and sifting will give an idea of the shrinkage occasioned by the several processes of manufacture; the estimate on Pan-firing covering both the Pan-fired and Sun-dried sorts:

GREEN LEAF.

From 100 lbs. of green leaf the natives obtain an average 40 lbs. of native-fired leaf.

BASKET-FIRING.

In basket-firing, native-leaf loses about 7 per cent. in weight.

In basket-firing, native-leaf loses from 3 per cent. to 7 per cent. in Nibs, Siftings, and Dust.

PAN-FIRING.

In pan-firing, native-leaf loses about 7 per cent. in weight.

In pan-firing, native-leaf loses from 12 per cent. to 17 per cent. in Nibs, Siftings and Dusts.

From the above estimate of shrinkage it will be seen that the loss by breakage is about 10 per cent. greater in the case of Pan-fired teas; a loss which is overcome, however, by the greater value that the leaf possesses made up as a Pan-fired; a value that could not be obtained were the leaf made into a Basket-fired tea. Adaptability of leaf entirely governs the choice of process of manufacture, and is of such importance that, as against it, cost of manufacture is never taken into consideration. While all native-leaf teas can be readily made into either Pan-fired, Sun-dried or Basket-fired, the style and condition of the leaf makes it more suitable for manufacture

into either one or the other of the Japan makes, as the case may be. Leaf that is better suited for basket-firing will, by that process, make up into a tea that will be much more satisfactory and valuable as a Basket-fired, than if made into one of the Pan-fired sorts, and, on the other hand, native-leaf that is more suitable for pan-firing will, by that process, make up into a tea that will prove to be much more satisfactory and valuable as one of the Pan-fired sorts, notwithstanding the greater loss by breakage, than if made into a Basket-fired tea.

Considerations of this nature are a part of the go-down owner's business, and, in his choice of process, he is governed entirely by the adaptability of leaf, and his purchases from natives, therefore, are controlled by the kinds or makes of teas ordered by his American clients, and by the existing American demand for the kinds.

During the years that a ten cents per pound duty was collected on all teas by the United States Government, the importation of Siftings and Dusts fell off considerably, in view of the fact that importers were unable to bring such goods over, pay the duty and make a profit, but, now that the duty has been removed, broken-leaf teas are likely to be imported and offered as freely as before. The lower grades, however, which, in former years, were frequently adulterated with the broken leaves and dusts of other plants, can no longer be imported, because of the strict enforcement of the United States Tea Act, which Act prohibits the importation of tea-leaf below a certain specified standard of quality, as well as of all adulterated and impure teas.

Within the last few years many native Japanese firms have established firing go-downs in the interior tea-districts of the country, and are firing native-leaf, for American and Canadian markets, after the Kobe and Yokohama methods.

Such firms are well represented in the several American

and Canadian markets and, as a result, their manufactured teas are becoming well known. The teas made by these native firms are distinctive as compared with those manufactured at Kobe and Yokohama, and, by many importers, are preferred because of their individual cupping qualities. Such teas are usually known as "Country teas," or "Country Japans" in contradistinction to the city made teas of Kobe and Yokohama.

Country Japans, throughout their gradings, have been exceedingly satisfactory to buyers, so far, and, although they are frequently lacking in style as compared with Kobe and Yokohama teas, their excellent and characteristic drinking qualities have gained for them a growing reputation.

The success achieved by British tea-manufacturers in the matter of tea-preparing machinery has warranted many progressive go-down owners at Kobe, Yokohama and elsewhere in Japan to attempt similar methods of manufacture, and at this time there are several plants that are manufacturing teas by machine. In most cases, however, these machines are a trifle crude, but, it is believed that in time, machines will be produced which will do most of the work that is, at present, being done by hand.

LEAF PREPARATION.

INDIA-CEYLON.—The commercial teas produced by the grower-manufacturers of India and Ceylon are—or rather, have been in the past—almost entirely made into the fermented black varieties.

Some teas of all of the green kinds, in imitation of Chinese and Japanese styles, are produced, but, so far, these have not ranked with those they are intended to replace.

For some years past the Anglo-Indian tea-manufacturers have struggled for supremacy in the American market, and



Photo From Life.

A PAN-FIRING "GO-DOWN" IN JAPAN.

have spent vast sums of money in advertising their black sorts, only to discover that Americans are not to be easily weaned from their taste for green teas, and that the climate of America is not conducive to the consumption of heavy bodied beverages, like that of England. At the present time the manufacturers of India, and particularly of Ceylon, are much exercised over the production of green teas suitable for the American market, and, in view of their past success, it will not be astonishing if they succeed in producing an India and Ceylon green tea that will, eventually, sell as readily as the Chinese and Japanese sorts in the American market.

In India there are a number of districts which produce and manufacture the leaf, each of which gives to its product the name by which it is known to the trade. Hence we have *Assams, Cachars, Sylhets, Darjeelings, Kangras, Dooars, Travancores* and other district teas. These district teas are again known by a distinguishing garden or estate name, and, as each estate produces distinctive leaf, the name of the garden is given to its production, so that this name may serve as a trade-mark or brand. These garden names or brands are frequently of local, or of fanciful Hindoo origin, although many companies give to their gardens names of Anglo-Saxon origin. For instance, it might, possibly, happen that a company would select the name "Homewood" to designate its tea-estate. This name "Homewood" would, therefore, be adopted by the owners of the estate as a trade-mark or brand for the production of the estate. The "Homewood" gardens might be situated in the Darjeeling or in the Sylhet district, and the "Homewood" teas would, therefore, be known to the trade as Darjeelings or Sylhets, as the case might be, but the garden name, "Homewood," would designate the exact growth and manufacture.

In Ceylon the estates or plantations give their names to their product, and by these estate-names, usually names of

native origin, the characteristic qualities of the various productions are known.

India and Ceylon teas are usually classed as *Flowery Orange-Pekoes*, *Orange-Pekoes*, *Pekoes No. 1*, *Broken Orange-Pekoes*, *Pekoes No. 2*, *Pekoe-Souchongs*, *Souchongs*, *Broken Pekoes*, *Broken Pekoe-Souchongs*, *Fannings*, and *Dust*, and all of these varieties are produced from the three leaves and end leaf-bud which are plucked at one and the same time, un-separated from the stem upon which they grew.

The end leaf-bud, when it is small enough, produces the Flowery Orange-Pekoe, and the Orange-Pekoe when a little larger. The next larger leaf upon the stem produces the Pekoe No. 1, but, if it is exceptionally small and "tippy" after manufacture, it might be graded as Orange-Pekoe. The other two leaves, according to size, after having been broken or cut, produce the remainder of the gradings known to commerce. All of these varieties, from Flowery Orange-Pekoe down to the lowest grading, go through the manufacturing process *at the same time*, in fact, the leaves are not separated from the stem upon which they grew until all preparation is completed, therefore these trade names or gradings do not designate a special method of preparation, but specify the size or age, and, therefore, the quality of the leaf only.

All districts and estates produce the above mentioned "makes," but it by no means follows that the quality of the specified makes of the different districts, or estates of one district, are equal. A Pekoe leaf tea, or a Souchong, grown on a first class Assam or Darjeeling estate is quite likely to be superior in every particular to the same gradings grown on an estate of inferior district, and is very likely to be superior to higher gradings of other districts. The reason for this is that some districts are more favored by nature in the matters of soil, climate, elevation, etc.; hence the

superiority of their products. Cup-testing, therefore, is the one and only way to determine the quality of an India or Ceylon grading.

In India, during the earlier days of tea-manufacture, Chinese methods of hand-work were followed in all stages of the manufacture, but, in later years, various power-machines have been invented to do the work of man, although no material change has taken place in the actual process itself, or in its result.

The leaves, as they are plucked, are brought to the factory in the baskets, and are carefully examined and weighed in; records of green weights being kept under Anglo-Saxon business-like methods.

The green leaves are then spread out thinly on jute hessian cloths—called “withering-cloths” or “tea-tats”—to wither; a process intended to render the leaves soft and pliable without drying them up. This hessian-cloth is very coarsely woven; its individual meshes being large enough to permit of the passage of a lead pencil without stretching; a coarseness of mesh which allows a free circulation of air; materially aiding the process of withering. On some estates trays and shelves are used for the purpose and withering is assisted by the application of blasts of hot dry-air.

The time occupied in the withering process—which is intended to render the leaves fit for the rolling machine—depends upon the state of the weather, but, without the aid of artificial means, leaves spread out to wither one day may be thoroughly withered the following day. The process demands great care and watchfulness in order that the withering may not proceed too far, and, for this reason, experienced and skilful operators are employed. At the exact moment the leaves are removed from the withering cloths or trays—which are usually situated on the top floor of the factory—and, after being placed in a drying room for a time, in order to evapor-

ate any remaining external moisture, are brought down to the bottom floor, where they are put into the rolling-machine—a silently-working, ingenious and effective piece of machinery driven by power.

For upwards of an hour the leaves are gently pressed and rolled by this machine, which action breaks open the sap-cells and bruises the stems; spreading the natural oily contents of both over the surface of the leaves; thus rendering the essential oils the more easily extractable by hot water at the time of infusion, for these oils are subsequently fixed upon the surface of the leaves by the firing process. During the rolling the leaves assume a twist or curl which is, of course, intended in order to produce the style or make.

When the rolling process is completed, the batch of bruised leaves—"the roll," as it is called in manufacturing parlance—is taken from the machine in a wet and very slimy condition, and presents a mass thoroughly saturated by the liberated juices of the leaves and stems; for the latter, being quite as young and tender as the leaves, are filled with sap, which they contribute to the whole.

The rolling process is a very important one, for upon the outcome depends the quality of the made tea. The process serves the same purpose as the more primitive one of the Chinese manufacturers; that of pressing the leaves in a wooden trough.

The "roll" is then ready for fermentation or oxidation. For this purpose the damp leaves are placed in layers of from three to four inches deep upon trays, and covered with damp cloths. In this state oxidation sets in very quickly, the chemical change being aided by the moist condition of the leaves, as well as by the dampness of the covering cloths. The success of this operation is not entirely within the control of the operator, but depends, in quite a measure, upon the condition of

the atmosphere, and, according to the damp or dry condition of the latter, takes from one to five hours.

Oxidation changes the natural green color of the leaves to a copper color, and much depends upon the success of the process, as in the case of China black teas, for not only is a good color dependent upon the operation, but the subsequent flavor and aroma of the manufactured tea depends upon its success also.

The next operation is that of "firing;" a process which appears to be done differently, or rather, by the aid of differently constructed machines in different parts of the country. It would appear that, of the various applications of the same system, the one using hot-air blasts is the most popular. By this system firing is attained by placing the leaves upon trays of wire net-work, and subjecting them to a gradual action of hot-air blasts of a high temperature, which has the effect of drying them thoroughly in from twenty minutes to half an hour, at the end of which time they are crisp and firm and ready to be separated from the stem into the several gradings as specified.

The separating of the varieties or gradings is also done by machine, the leaves being broken apart from the stem by it; and then, by the aid of a series of graduated sieves, are separated according to size. Leaves that are too large to pass through the sieves are automatically dropped into a cutting or "breaking machine," by which they are reduced to the regulation size.

Fannings and Dusts are separated with the leaves, and at the same time; and, coming from all the gradings of the leaf, can have no especial grading.

The teas are then "bulked," that is, put into extremely large air-tight chests, there to remain until the "break" or chop is completed.

Before re-chesting—that is packing into merchantable

chests and half-chests—the teas are again slightly fired in order to evaporate any moisture, or any suspicion of moisture, that may have gathered upon the leaves; and then, while still warm, they are securely packed by the packing machine into lead-lined wooden boxes or chests; the lead lining being carefully soldered in order to exclude the air. The chests are then stencilled with the grade, estate brand, weight, etc., and are ready for shipment abroad.

In later years most of the factories have adopted the use of metal chests with wood covers, and, in these, no lead lining is necessary.

INDIAN-CEYLON TEA CLASSIFICATION.

In the British tea-manufacturing countries the manufacturers recognize two distinctive classes of teas, which, including all teas under the heading of one or the other of these classes, are known to them as “Unbroken” and “Broken” teas; and these terms, as the words imply, distinguish the unbroken, or small leaf teas, from those kinds which, on account of their larger size of leaf, have to be submitted to a cutting or “breaking machine,” as it is called, in order that the leaves may be reduced, by cutting, to a smaller and, at the same time, more uniform size.

The unbroken sorts are known as *Flowery Orange-Pekoe*, *Orange-Pekoe*, and *Pekoe No. 1*.

The broken leaf teas are known as *Broken Orange-Pekoe*, *Pekoe No. 2*, *Pekoe-Souchong*, *Souchong*, *Broken Pekoe*, *Broken Pekoe-Souchong*, *Fannings*, and *Dust*.

It is usual with the trade in India as well as in England and the United States to abbreviate these long names by making use of the initial letters of the words. For instance, the

letters O. P. stand for "Orange-Pekoe;" B. O. P. for "Broken Orange-Pekoe;" P. S. for "Pekoe-Souchong," and B. P. S. for "Broken Pekoe-Souchong," etc.

A process of sieving, after manufacture, separates the sorts. A series of sieves of different sized meshes is used, the smaller leaf passing through the series, grading the unbroken teas according to size and, therefore, age, and returning the different gradings of unbroken teas as specified above. The top sieve retains all leaf too large for commercial purposes, and it is, therefore, gathered up and put through the breaking machine, after which it is passed automatically to another series of sieves which separates it into leaf of different sizes, and known as the above mentioned sorts of broken teas. In breaking teas a considerable quantity of fannings and dust is made, which, however, finds a market.

The grading of both unbroken and broken teas is entirely optional with the factory producing them, for there is no trade-law governing the grading of British-made teas. Leaf that one factory might consider good enough to grade as Orange-Pekoe, another might deem fit only to be graded as Pekoe No. 1; and the Flowery Orange-Pekoe of one estate might be graded as Orange-Pekoe by another. In broken teas the Broken Orange-Pekoe turned out by one factory might be classed by another as fit only to be graded as Pekoe-Souchong, so that, in the purchase of teas of British manufacture, the buyer must be guided by style and cup qualities, and not by the gradings stencilled upon the cases.

FLOWERY ORANGE-PEKOE—F. O. P. is obtained from the very youngest end leaf-buds of the shoot if small and silvery enough to grade as such; many of the tiny bud-leaves that spring out singly upon each shoot entering into its composition. It is the highest grading of India teas. The word "Flowery" is added to that of Orange-Pekoe to distinguish it,

commercially, from the grading next below it, and not because it is made from the flowers or blossoms of the tea-plant, which are never used for tea. It has a silvery appearance, and is sometimes known as "Silver-tip," the white hairs that grow upon the bud-leaves producing this effect after manufacture. In Ceylon the manufacturers prefer the name "Silver-tip" to that of "Flowery Orange-Pekoe."

ORANGE-PEKOE.—O. P. is so called because of the small orange-colored tips—frequently called "golden-tips"—that decorate the ends of many of the leaves. The leaf is usually well made or curled, and, therefore, quite stylish. Orange-Pekoes are made from the second youngest leaf on the shoot, provided that the first youngest is small and silvery enough to furnish F. O. P.; if not, these youngest leaves are made into O. P., and, in such a case, the O. P. is the first grading of the "break" or chop. The quality of Orange-Pekoe teas, like that of other Indians and Ceylons, is dependent upon the district and garden of growth, as well as upon the care that is exercised in its manufacture. The leaf is black, or grayish-black in color, oftentimes quite silky in appearance, the golden tips, contrasting favorably with the black leaf, giving the whole an exceedingly handsome appearance. Some Orange-Pekoes are much more "tippy" than others, those having the greater quantity of tips being classed higher in cost on account of the better style the tips impart.

PEKOE TEA is, presumably, so called for want of a better name, for it cannot be said that it resembles the Pekoe tea of China. In its composition there is usually a small proportion of yellow tips—called "Pekoe tips"—which fact is responsible for its name.

Pekoe tea is made from the second leaf on the shoot as plucked, or from the third if there happens to be a sufficiency

of end leaf-buds to make a Flowery O. P. grading, and is, therefore, the second or third youngest leaf as the case may be.

Unbroken Pekoe is usually classed as "Pekoe No. 1" to distinguish it from that known as "Pekoe No. 2," a leaf of similar appearance made by the grading of broken leaf.

The difference in age of leaf between Pekoe No. 1 teas and those called Orange-Pekoes is but a day or two—Indian and Ceylon pluckings being made once a week—so that the difference, as far as drinking quality is concerned, between Orange-Pekoe and Pekoe, when made at the same time, is not very great, the superior style of the former caused by its more abundant pekoe-tips, creating much of the difference in cost, and it frequently happens that a Pekoe tea will cup equally as well as its Orange Pekoe.

In style Pekoe teas are usually good, the leaves being black or grayish-black, well made and regular in twist. The kind resembles some varieties of China Congous more than any other tea.

SOUCHONG TEAS, like Pekoes, are, presumably, so called for want of a better name, or it may be that the name was first applied to the grade in a spirit of humorous contrariety, for the Chinese meaning of the word "Souchong" is "little sort," because the supply is not great; whereas the supply of India and Ceylon Souchong teas is greater than that of most of the other gradings. Souchong teas are made from the third and fourth leaves of the shoot, which are altogether too large for use as commercial tea, so that cutting or breaking becomes necessary to reduce the size and render the leaves more uniform. This process creates a good appearing leaf, and, although not so well curled as the leaves of the O. P. and Pekoe gradings, on account of greater age and lesser pliancy to take the twist, it is fairly stylish, and, in some markets, is in

good demand. The leaf is usually dark in color, having, in some cases, a slight reddish tinge, without pekoe-tips.

The remaining gradings, all broken teas, are made after the leaves have been cut and sifted; the appearance and cupping qualities of the broken leaf, as caught by the different-sized meshes of the sieves, going far to determine by what name the tea shall be branded.

BROKEN ORANGE-PEKOE.—B. O. P. may show quite a sprinkling of tips, or may be without them. The grading is, more frequently, obtained from the younger cut leaves, although, on the other hand, it may be made from leaves of coarser quality. B. O. P. is very useful for blending.

PEKOE-SOUCHONG.—P. S. looks like a Pekoe, but shows no golden tips, at least some gardens grade such a leaf by the term. In reality it is composed of both Pekoe and Souchong leaves, as its name implies, which have been caught by the same sieve after breaking. In such a case it may show a few Pekoe tips. Some estates would grade such a leaf as Pekoe No. 2.

BROKEN PEKOE—B. P., and **BROKEN PEKOE-SOUCHONG**—B. P. S. are leaves of very broken appearance, too much so to grade them as Pekoe or Pekoe-Souchong. The appearance of the broken leaves, as it approaches that of the grading it resembles, is responsible for the gradings.

FANNINGS AND DUST are obtained during the breaking and are, therefore, taken from all grades of the leaf by screening.

Many India and Ceylon estates class a Congou grade among the others. When used, this grading comes in under



PICKING TEA LEAVES IN CEYLON.

the broken tea heading, and, in appearance, is between a Sou-chong and a Pekoe No. 2 grading, resembling the former more than the latter. It is a useful leaf in the English market where so much blending is done, giving a cheap base, and one that is not too characteristic, for many of the less costly blends.

The drinking qualities of India and Ceylon teas vary considerably, the conditions of soil, climate, water supply, elevation, etc., on the one hand, and the season of plucking, on the other, having much to do with the intrinsic qualities of the product.

The various gradings, as enumerated, are manufactured in all of the tea-districts, and upon all of the estates, but these gradings, being made from the leaves of different species of the plant—in some cases from the native plant; in others from the Chinese; and yet in others from the Hybrid—as well as being made from the leaves of plants subject to the better or to the poorer climatic influences of the several widely separated districts, can hardly be expected, under the circumstances, to conform to one universal standard of quality in the gradings. “First flush” or Spring leaf teas in both India and Ceylon, as already stated, are almost invariably inferior to the pluckings of the Autumn months, so that in a comparison of Indian gradings, style should not be allowed to influence the judgment, and the cupping test be resorted to in order to arrive at a satisfactory determination of quality or value.

LEAF PREPARATION.

UNITED STATES OF AMERICA—In so far as the manufacture of American tea is concerned, the methods employed are, in a measure, similar to those in use in the several British tea-countries.

The invention of machinery to do the work of manipulation, which is done by hand in China and Japan, was the natural outcome of British up-to-date labor-saving methods, but, although much may be said in its favor, it has yet to be demonstrated that a machine can produce teas equal to the time-honored, high-grade hand-made leaf of China and Japan. The system has enormous advantages, however, advantages, in the way of the production of uniform leaf at a minimum labor-cost, which tea-manufacturing nations cannot afford to overlook, and it is but natural that American manufacturers should apply their genius in this direction, for without the aid of machinery American tea would be an utter impossibility. Machinery, therefore, is used in all stages of the manufacture at Pinehurst, and, although the several machines have been patterned after those of British make, many improvements have been invented which have, already, demonstrated their greater practicability.

GREEN TEA—Leaf intended to be made into green tea is selected according to season or time of year. In the Spring green tea may be made from the leaves of any of the numerous varieties of the plant, but, as the season advances, leaf is chosen, for the purpose, from Darjeeling, (Indian) Chinese, and Japanese plants, for it has been discovered that the leaves of these varieties, being smaller, thicker, and less quick to oxidize, furnish the most desirable leaf for green tea. The leaves of other varieties are subject, during the Summer and Autumn months, to a much more rapid oxidation, or fermentation, a natural chemical reaction, brought about, mainly, by heat, which darkens the leaf and renders it unfit for manufacture into green tea.

It is much more expensive and difficult to manufacture leaf into green tea than into black. In the manufacture of the former kind there is a greater percentage of waste, caused,

chiefly, by discoloration, (oxidation) for, were these more-or-less oxidised leaves allowed to pass inspection, the manufactured tea, showing the discolored leaves, would be considered inferior. Great care, in all stages of the manufacture, is absolutely essential in order to produce a finished green tea. The slightest slip in any one of the several operations attending the manufacture is quite likely to spoil the delicate flavor and render the entire batch subject to a lower grading and valuation, if not to final rejection, so, for this reason, experienced labor is employed and careful supervision exercised.

Great care has, also, to be exercised in plucking leaves intended for manufacture into green tea, for the slightest bruising of a leaf, during picking, causes instant fermentation to set in, rendering it unfit for the purpose owing to the consequent discoloration.

Manufacture begins as quickly as possible after the leaves have been brought in from the gardens. The first process is, at once, intended to kill the enzymes, (a natural ferment contained in the cells of the leaves and stems) and so prevent oxidation, and to get the leaves into a condition to roll. In China and Japan this is done by roasting the leaves in open pans over a slow fire, and in British tea-countries the same result is attained by means of mechanical contrivances using live steam. At Pinehurst hot-air drying machines are now used for the purpose, it^o having been discovered, during the investigations, that such a method is superior to that in use in Oriental tea-countries.

The hot-air machine, in addition to killing the natural ferments—enzymes—thoroughly dries the leaves by evaporating all superficial moisture, at the same time rendering them soft and pliable and fit to take the twist or roll which the succeeding process gives to them. From the hot-air machine the pliable leaves are taken to the rolling machine in which they are first subjected to a pressure just great enough to break the

sap-cells and spread the contents—chiefly essential oils and theine—over the surface of the leaf so that these may be the more soluble in boiling water at the time of infusion. Then, by a process of alternate rolling—which forces the leaves to assume their required twist or curl—and drying—which is intended to fix the cell-contents and prevent their loss—the tea is gotten into a condition for “firing.”

In the “firing” process the twisted leaves are placed in frames, made for the purpose, through which blasts of hot air, starting at a temperature of 210° F., are passed, the temperature being gradually decreased. This process takes several hours, and results in a “toast” sufficiently great to preserve the manufactured tea for an indefinite period. The finished tea is then weighed, packed immediately into one-pound and half-pound cans, and boxed for shipment.

American tea, during the rolling process, does not receive the amount of labor which is expended upon teas in Oriental countries. The result is that the twist or style of the leaf, which it receives during the process, is not nearly so good as that of most Eastern made teas. Stylish teas could be as easily made at Pinehurst as elsewhere, but practical experience in the manufacture, and a greater scientific knowledge, has proven that to twist or roll the leaves unduly, in order to produce style, results in great loss of flavor, and, for this reason alone, stylishly made teas have, so far, been eschewed by the first American manufacturer.

In the manufacture of green tea at Pinehurst no attempt has been made to imitate the round or straight makes of Oriental countries, although the green tea produced resembles the straight Young Hyson leaf of China more than any other. It is different, however, in style of make and in color, to any other tea, and it is, apparently, the intention to produce an article that may be recognized the world over as an entirely new make—a distinctive, uncolored “American Tea.”

BLACK TEA—Leaf intended to be made into black tea has first to be wilted or “withered.” The leaves, as brought in from the gardens, are taken to the withering loft and are there spread out upon trays made for the purpose, and allowed to remain exposed therein for a period of from six to fifteen hours, according to the condition of the weather. Every pound of made (black) tea represents over forty square feet of withering space, so that in order to economize room and accommodate larger quantities of the leaf, the fixed trays are supplemented by a series of traveling trays of cloth, worked by a running gear. In these trays the leaf is exposed to hot-air which ascends from tea-driers below until it is completely withered and fit for the next process, that of rolling.

The rolling machine, as in the case of green tea, bruises the sap-cells, spreads the contents over the surface of the leaves, and gives the desired twist or curl. Green tea is dried immediately after rolling to prevent discoloration by oxidation. Black tea is taken from the rolling machine in a wet, sticky condition, due to the expression of the leaf-juices, and, without being dried, the “roll”—as the moist batch of leaves is called—is broken up, spread apart upon tables, and as much as possible of objectionable leaf removed. Still wet and sticky—for dried leaves would not oxidize so quickly or so well—the leaves are then spread out on clean tray-frames of cloth in order to expose them to the oxidizing action of the air, and they remain in this condition until sufficiently oxidized and the resulting black color is thoroughly established. The length of time occupied by the oxidizing process is regulated by the condition of the weather and by the kind of “body” required. Light or heavy bodied black teas are made so at the will of the operator during the oxidizing process.

The batch of leaves is then put through the drying machine, and, in about twenty minutes, is thoroughly “fired.” During the drying, or “firing,” process the leaves are turned

over several times, at the same time being subjected to a temperature of about 230° F.

A system of screening and fanning then separates the leaves into the different sizes and removes the greater part of the stems and objectionable leaf, but, before final packing, hand-sorting is resorted to in order to remove anything objectionable that the screens and fans have failed to take out.

The finished tea is then packed into large air-tight cans and allowed to "season." Seasoning rids the tea of any "herbiness." Before final packing into air-tight one-pound and half-pound cans, the teas are heated for several hours at a temperature of about 150° F. This removes any moisture that the leaf may possibly have gathered since firing, and develops a further fragrance.

Pinehurst teas are invariably packed in pound and half-pound cans, for it is claimed that in order to retain their full value and fragrance they should be so kept until used.



Photo From Life by Mr. Alfred Adelsdorfer.

BRINGING NATIVE LEAF TO MARKET IN JAPAN.

CHAPTER IV.

THE TEA MARTS OF THE ORIENT.

In another chapter it has been shown that the commercial tea-leaf is prepared in the different growing countries in a manner which is, in cases, extremely crude and laborious, in others, scientific and labor-saving, and that these several methods of preparation, and the results of these methods are, to all intents and purposes, the same.

The object of all growers and manufacturers is, at once, to produce a commercial leaf, and to put it into such a condition that it will retain its intrinsic qualities from one season to the other, and enable that destined for a foreign market to withstand the exigencies of an ocean voyage.

After these objects have been accomplished, the methods employed by the different peoples in getting their product to market, and selling it to foreign buyers, are as diversified as the peoples are themselves.

CHINA—In China, owing to the enormous stretch of country covered by the tea-growing districts, and to the extreme crudeness of the methods of transportation, the tea-trade is conducted under a system which is peculiar to the conditions existing; and foreign buyers of the leaf are compelled to adapt themselves to these conditions, and to accept the Chinese methods of doing business.

Tea is grown in sections of China over a country which, in round figures, covers a territory of about one thousand miles from east to west, and about an equal distance from north to south. Railways are, practically speaking, unknown in the interior; beasts of burden are scarce, so, as already de-

scribed, man-power is employed as a method of transportation where river or canal boats are not obtainable. Under the circumstances it is difficult to imagine a system which would be superior to that which is, at present, employed by the Chinese in preparing their product for, and getting it to market, so that until that national conservatism, which is so bitterly opposed to Western ideas and innovations, can be overcome, and railways and other means of rapid transportation introduced, the present system will remain unaltered.

It has also been shown that the Chinese tea-gardens are mostly little spots of land cultivated by native farmers, and that the farmers, in view of the extremely slow method of transportation and the consequent danger of damage to the leaves during this transportation, put their product through a course of semi-preparation. The semi-prepared leaves are collected from the growers by the factors or tea-men from the larger cities of the tea-districts, and, upon arrival at the respective "hongs" in these larger local cities, are put through the process of manufacture already described. It would appear that few, if any, growers, raise enough leaf to produce what is known as a "chop" of teas, so that the owner of the provincial "hong" carefully selects sufficient leaf from his collection to make about 600 chests, more or less, and this he calls a "chop." A Chinese chop of teas, therefore, is composed of the leaves from several or from many gardens.

After the chop has been prepared and separated according to kind and grade, it is ready for market, and is transported by man-power, or by river or canal boat, to the nearest greater inland mart, or to a sea-port city, if nearer, or more convenient.

In the interior of China there are several greater tea-marts which draw the millions of chests of all kinds and grades of tea annually from the innumerable hongs situated amid the enormous stretches of surrounding tea-country.

From these greater marts the entire Chinese product is distributed, most of it going to home markets for local consumption, while that portion of it which is purchased for foreign markets is re-shipped to the most convenient sea-port.

Very close to the center of the tea-producing country, and situated upon the banks of the great Yang-tse-kiang River, are the cities on Han-kow, Kiu-kiang, Han-yang, and Wu-chang, the combined population of which was estimated by the Abbe Huc in 1845 at about eight millions. These are China's greatest and most famous inland tea-marts, and to one of them the innumerable hong owners of the tributary districts ship their product.

Han-kow during the first crop tea-season, which lasts about six weeks, is busy indeed. Here the foreign exporters assemble; buyers for export to England, Russia, America and other countries. Here the European and American tea-testers ply their art in the interest of employers, bargaining with the great Chinese brokers and merchants for this chop of teas and for that. During the high tea-season the tea-tester is supreme, for he is the only go-between recognized. To him the Chinese brokers submit their samples, and with him, after testing, the bargaining is done until a price is agreed upon. All day long, during the six weeks' sale of first crop teas, these testers are at work, sampling, bargaining and buying in the interest of their employers, rigidly observing the laws of temperance throughout, for their keenest senses and faculties must ever be on the alert; and whenever a tester is seen indulging in any refreshment stronger than soda or mineral-water it is a sure sign that the great tea-season is declining, and that little choice tea is being brought in from the country.

Most of these tea-testers are Englishmen and Americans, and all are remarkably expert at their trade despite the fact that, during the season, their work is done under the very highest pressure. Russian tea firms, strange as it may appear,

invariably employ English or American testers, and this, it is said, is for a reason not very flattering to the Russian character.

Hundreds of thousands of chests of tea are purchased annually by foreign exporting firms during the six weeks of the season, and, after purchase, the teas are delivered by the Chinese broker in chests, bamboo baskets or in thick paper bags, from which it is dumped into great bins at one of the godowns or factories, where it is subjected to another firing for the purpose of dissipating any moisture which may have accumulated during transportation from the hong or during storage while awaiting a sale.

After it has been purchased and re-fired it is carefully packed, and shipped by junk on the river to Shanghai, some 600 miles to the eastward, where, if necessary, it is subjected to another firing in order to evaporate any moisture it may have collected in transit, as well as to enable it to withstand a long sea-voyage; after which it is carefully packed into the lead-lined chests we receive it in, and is ready for sale by the exporting firm to the agent of the foreign importer and to load into the ocean-going steam-ships for transportation abroad.

The history of a tea-season at Han-kow is the history of all other tea-marts. Shanghai, Foo-chow, Amoy, Canton, Wen-chow and other sea-port marts receive teas from near-by interior hong in addition to an enormous bulk from the greater inland marts.

Both inland and sea-port marts have many re-firing establishments in which all teas destined for foreign shipment are fired again before final chesting.

At the sea-port cities of China, European and American tea-exporting firms and brokers have offices established, well appointed in every way, and it is to these that the tea-buyer for foreign importers usually goes to do his trading. These exporting firms can usually supply the demand of any Euro-

pean or American tea-importing house, and if not, they have the great inland tea-marts to draw upon where their buying agents are established. It is immaterial to the foreign buyer whether the broker or exporting firm owns the lines of teas he selects or is merely acting for a Chinese owner, and, in either case, he purchases if the price and other considerations suit him.

After the trade has been completed, the exporting firm receives the importer's instructions as to labels, brands, style of packing, etc., and invoices the goods at the agreed price, plus whatever costs that may have accrued.

The American and European buying agent usually, although not always, purchases a chop of teas in its entirety, comprising the various lines or gradings, at so many taels per picul for the chop. This, of course, is paying an equal price for all of the kinds and grades which constitute the chop, so that grading for a cost becomes necessary, either at the port of shipment or at the destination of the tea. In this grading for cost all the qualities of the tea are taken into consideration; style, liquor, body, flavor, aroma, strength, etc., and an averaged cost for each separate kind and grade is arrived at, to which has to be added the freight, duties, re-firing charges, leading, chests, labor of packing, matting, rattaning, labeling, commissions, etc., in order to arrive at a laid-down cost at destination.

A Chinese tael at the present time, although varying in value according to the price of silver, equals about fifty cents, American; and a picul is exactly $133\frac{1}{2}$ lbs. avoirdupois.

The established exporting firms of Chinese sea-ports frequently act as buying agents for, or will sell directly to foreign importing houses who do not send a buyer to China to act for them. These exporting firms are reputable, as a rule, and can be relied upon to do the very best they can for a customer who intrusts them with orders by mail or cable. After the

rush of the early purchasing and exporting season is over, a large quantity of unsold teas, whole and broken chops, remains upon their hands, or in possession of Chinese owners, so that, throughout the year, quotations by circular-letter are regularly mailed to foreign clients and prospective buyers; the circulars usually giving local exporting quotations and other statistics of interest to an importer.

Payments for purchases are usually made by importers in the form of drafts or letters of credit upon London banks at 6 months sight, which are readily discountable at any of the Oriental banks.

Each shipping-port of China ships to foreign countries the kinds of teas that are grown and made in districts which are naturally tributary to it.

From Shanghai, North China teas are shipped, which include Monings, or black-leaf Congous, Gunpowders, Young Hysons, Imperials, Hysons and Twankays of the different kinds and grades.

From Foo-chow, South China teas are usually shipped, including Kaisows, or red-leaf Congous, Souchongs, China Ooloongs, Flowery Pekoes and Scented Orange Pekoes.

From Canton, which city has the reputation of manufacturing and shipping most of China's adulterated teas, are shipped Canton Greens, comprising Gunpowders, Imperials and others; coarse black sorts, Scented Capers, Scented Orange-Pekoes and "new-make" Congous.

From Han-kow teas intended for overland transportation to Russia are shipped, including the very highest and finest grades of Ning-chow, Ly-Ling and Kintuck Congous; Brick tea of the higher grades for Russia, and the coarser Brick and Tablet sorts for Mongolia and other Russian Asiatic countries.

Within the last ten years or so the shipping port of Wenchow has been coming rapidly to the front and has succeeded in gaining a considerable amount of the business which had

hitherto fallen to the lot of Foo-chow and Amoy. It is said that the sorts which arrive from the interior to the west of Wen-chow are of excellent quality, and that labor and fuel there are cheap.

Prior to the Chinese-Japanese war of 1894 the port of Amoy handled the bulk of Ooloongs from the neighboring island of Formosa, in addition to some of the China Ooloongs raised in the Province Fu-Kien, of which Amoy is a sea-port, but since that war, the island of Formosa having become a Japanese possession, Formosa teas are handled at the island sea-port Tam-Sui, so that, in consequence, the business of Amoy, as a shipping port, has fallen off considerably.

JAPAN—In Japan the tea-trade is carried on, up to a certain point, almost exactly as in China. The native farmers grow and prepare the leaves; middlemen collect them and send them in in quantity to the most convenient sea-port, where they are purchased by the commission men, who own and operate the firing go-downs. These go-downs, as has been already stated, are owned by Europeans and Americans, although, in recent years, many native-owned plants have been established, and, under the fostering care of the Japanese Government, business is done by the native owners directly with American importing houses. Tea-firing go-downs are frequently extensive establishments, employing many hundreds of operators; their size and capacity being known by the number of "firing-pans" in operation; a go-down operating 500 pans or more being not uncommon.

Before purchasing from the native middlemen the owners of the go-downs are fully prepared with a knowledge of the kind of leaf required to fill their commissioned orders from America, so that the selection is a simple matter if they understand their business, which is usually the case.

Teas are brought in from the outlying districts to the

shipping ports in a state which permits of further manipulation. The condition of the prepared leaf as it is brought in is similar to that as used by native tea-drinkers, and although it is usually referred to by both commission men and importers as "raw-leaf" it is really not so in fact. Its appearance is exactly that of the kind we know as "Basket-Fired," and it is tested in the cup by the experts of the go-down owners in the same manner as we test it in America. It is prepared in the country districts to give it the appearance described, but in order that it may stand a sea-voyage and possess good keeping qualities in the country of its destination, it must undergo a higher firing, and to do this, in accordance with the orders of customers, is the business of the go-down owners.

The business of the latter with the American importers is done chiefly on a commissioned basis, so that in the purchase of the so-called "raw leaf" they do it on behalf, and for the account of, their clients.

While the filling of previously obtained orders is the bulk of their business, many commission men purchase leaf on speculation; fire and make it into whatever kind they deem desirable, and depend upon future orders or, in default of these, consign it to their American representatives for disposition as occasion permits. Thousands of chests are annually consigned and held in storage at the different ports of entry in America and Canada on what is known as "joint account;" that is, where an American importing house joins financial forces with the Japan exporting house and owns an equal or part share in the consigned teas. Before the end of the season these teas are usually worked off to the lesser importers of the country who may have run short of certain grades, or have not imported in quantity sufficiently great to meet their requirements.

In order to obtain business many of the go-down owners or commission men, as they are more frequently called, send

their traveling men yearly to see their regular customers in America and take their orders for the succeeding year's growth; incidentally obtaining as many new customers as possible. The competition for the trade of the American and Canadian importers is very keen, so that these representatives must necessarily be men of ability and have a thorough knowledge of the business.

On the other hand many large American tea-importers send their buyers to Japan before the opening of the tea-season there, in order that they may be on the spot to purchase and superintend the manufacture of their purchases. These buyers frequently go on to China for the same purpose, and the Pacific steamships leaving San Francisco, and other Coast ports, in March and April of each year carry many of our best known tea-men to the Orient.

In dealing with these commission houses American importers are in possession of every advantage which is possible to obtain. Teas can be made exactly to their order in point of style, color, fire, etc.; and chests, boxes, packages and tins can be gotten up to suit them in every respect. If an importer is not quite satisfied with the past season's makes, he can issue instructions to his commission house to fire higher or lower as the case may require; to produce teas of better style or of better cup qualities; to match a given sample or standard in color, in style, or in cup, and the commission house will follow instructions carefully and produce goods accordingly. These advantages are simply the outcome of the establishment of business houses in Japan, whose ideas of trade are identical with our own; and of the native method of preparing the green leaf which permits of a further manipulation.

Yokohama and Hiogo-Kobe are the great Japanese shipping ports, and it is in these two cities that the firing go-downs are mainly established.

During the tea-season, which opens in the latter part of

April or the first of May each year, and lasts until the end of the second or third crop picking, in July or August, these two cities are run under very high pressure, for the go-downs are compelled to work to their fullest capacity in order to turn out their orders for America and Canada.

So that the commission houses may be enabled to purchase native-leaf to the best advantage, American orders for teas must be in their hands before the leaf begins to come in from the country districts. For this reason the work of obtaining orders in America is done during the earlier months of the year; and in April, before the season opens in Japan, every commission house knows just what its orders for the several pickings are. Then, with a knowledge of the requirements of its American clients the commission house selects native-leaf as it is offered for sale by native brokers, and purchases that which will make up to the best advantage in filling orders. The native brokers are prepared to make immediate deliveries to the go-downs, and, with the arrival of the first native-teas, the season opens, from which time, until the latest picked leaf is delivered, but little rest is expected in any of the departments of the go-down.

As quickly as the teas are fired, "musters," or samples, of each individual line are mailed or expressed to the American purchasers, so that the quality of the goods may be known more speedily than if the chests were waited for.

An American importer's order for Japan teas usually includes the several kinds and many grades of each kind as well as teas of the several pickings. Steam-ships leave Japan at frequent intervals during the tea-season so that teas can be shipped as quickly as they are manufactured and boxed; and this convenience in the matter of shipments enables the commission houses to forward the several kinds and grades in the order as they are made. First crop teas, therefore, generally



A TEA TESTING ROOM IN A YOKOHAMA "GO-DOWN."

Photo From Life.

reach America in June or early July and the poorer grades and later picked teas in August and September.

In placing his order with the Japan house the American importer prepares for the payment of the several invoices by forwarding a letter of credit, usually on some London bank. This letter of credit is issued by a responsible American bank having London connections and its face value is great enough to cover the value of the various shipments of tea, and, upon receipt, the Japan house deposits it with a bank there. As each shipment in connection with the order is made, the commission house draws against the letter of credit for the amount of the invoice, attaching the original bill of lading to the draft. The Japan bank cashes the draft and forwards it to London for collection. By this means each shipment of teas is made a separate transaction; and has a separate invoice showing the completed transaction; the entire transaction being closed when the last shipment is made and drawn for. The London bank settles with the American bank that issued the letter of credit, and the American bank with the importer. Thus the financial papers connected with an importation of Japan teas travel around the world.

As soon as an order for a line of tea has been manufactured and packed the invoice is made out and mailed to the importer, so that it may be on hand, for cost-figuring purposes, before or, at least, as soon as the tea itself. Japanese invoices are usually made out in Japanese currency—Yens and Sens, Japanese Dollars and Cents. These invoices show the number of chests in the line, the style of packing, the quantity of native-leaf purchased to make the teas, the price per picul— $133\frac{1}{3}$ lbs.—paid for the native-leaf, and the shrinkage in firing, siftings and dust. To the amount so charged, the firing, packing, matting, insurance and other charges are added, and the total, in Japanese currency, is converted into English sterling, showing the amount drawn for on Lon-

don against the letter of credit; the rate of exchange between Japanese coin and English gold being specified and in accordance with the current rate of exchange. The American importer with these figures before him is enabled to convert the English sterling into American gold values and arrive at his costs.

The freight rate on teas is usually pre-arranged; a through rate, including steamer and rail from Japan common points to the several American ports of entry being made, and is paid at the destination of the teas.

In Japan the governmental system of monetary coinage is decimal. Coins are known as "Yens" and "Sens"—"Dollars" and "Cents." Although gold yens have been coined they are not in general circulation. A Japanese silver yen is the same size as an American silver dollar, and is worth, approximately, \$0.498, American gold. The subsidiary coins, "sens," are related to the yen in the same ratio as cents are to dollars in America—100 sens equal 1 yen. Europeans and Americans in the tea-trade in Japan speak of the Japanese yen as a dollar. Teas are purchased from natives by the picul at so many yens (dollars) per picul, therefore teas costing Y40.50 per picul are known as 40½ dollar teas; teas costing Y38.25 per picul as 38¼ dollar teas, and so on according to the value per picul. This system of valuation is spoken of, and generally known, as the "dollar-cost" of teas.

In placing an importation order for teas, limits as to the price to be paid per picul are frequently given at the dollar-cost by American importers; which means that the commission house is limited in purchasing raw-leaf to so many yens (dollars) per picul. The following is an example of a Japanese tea-invoice showing an entire transaction. The figures have been obtained from an actual invoice, but the name of the importer is, for obvious reasons, fictitious:

JAPANESE TEA INVOICE.

150 PACKAGES TEA.

S. S. "Tacoma," to Tacoma and rail to Chicago.

Order Jones, Smith & Co.

[J. S.]	No. 95.	25 H-C.	Ea. 80 lbs.	2000 lbs.	Pcls. 17.79 at	Y 40.50	720.49
"	" 96.	50 H-C.	" 84 "	4200 "	" 37.37 "	Y 38.25	1429.40
"	" 97.	75 H-C.	" 80 "	6000 "	" 53.38 "	Y 35.00	1868.30
	S. C. 150	H-C.		<u>12,200 lbs.</u>	Pcls. <u>108.54</u>		Y 4018.19

Loss in weight; Firing, 7.05 per cent, Siftings, 7.97 per cent = 15.03 per cent.

CHARGES:

Firing, packing and boxes.....	at	Y 5.00	Y 542.70
Face matting	"	4 c	6.00
Matting, marking and rattaning	"	30 c	45.00
Fire Insurance on Y 4611.89.....	"	½ per cent	23.06
Storage at 8 c Y 12. Shipping at 5 c Y 7.50.....	"		19.50
Interest on Y 4018 for 15 days.....	"	10 per cent	16.51
Consular fee			5.00
G\$221.25 Freight payable in Chicago at 1½ c per lb			---
Marine insurance covered in America.....			---
Musters and petties Y 20. Telegrams Y 5.....			25.00
Inspecting, 1 per cent on Y 4018			40.18
			<u>722.97</u>
			4741.16
Buying commission	at 2½ per cent	Y 118.53	
Bill brokerage	" ¼	6.08	<u>124.61</u>
		£503.1.0 at 2.0 ¹³ / ₁₆	Y 4865.77

E. & O. E. HIOGO, June 8, 1901.

This invoice shows, first, that 150 packages of tea have been shipped by the steamship "Tacoma" to Tacoma; thence by rail to Chicago, and that the teas left Hiogo, Japan, on June 8th, 1901.

The brands of the teas are J. S. over C. in a block, Nos. 95, 96 and 97 respectively. The letters "S. C." signify that the teas are Sun-Cured. Three grades are specified, viz.:— 25 half-chests of No. 95, 80 lbs. each making 2,000 lbs. net, obtained from 17.79 piculs of native-leaf, which cost 40½ yens per picul, therefore, a 40½ dollar tea; 50 half-chests of No. 96, 84 lbs. each, making 4,200 lbs. net, obtained from 37.37 piculs of native-leaf, which cost 38¼ yens per picul; a 38¼ dollar tea, and 75 half-chests of No. 97, 80 lbs. each,

making 6,000 lbs. net, obtained from 53.38 piculs of native-leaf, which cost 35 yens per picul; a 35 dollar tea. The total cost of the native-leaf shows as Y4018.19. The yen sign "Y" is used as we use our dollar sign "\$."

Then follows specifications of the loss in weight in firing and siftings, totalling 15.03 per cent.

The charges for firing, or manufacturing the native-leaf, packing, interest, etc., are itemized and charged for at specified rates; for instance:—The first charge for firing, packing and boxes is made on the total number of piculs purchased—viz.:—108.54 piculs at Y5.00 per picul, equals Y542.70.

The letter "G" before the dollar sign preceding the sum \$221.25, signifies that this sum for freight, which is payable in Chicago, is in American gold dollars—G. \$221.25—in contradistinction to the silver value of the Japanese dollars or yens at which the rest of the invoice is figured. The interest and inspecting charges are figured on the original value of the raw-leaf and not on its value after manufacture. The buying commission of $2\frac{1}{2}$ per cent. is charged on the value of the manufactured tea, and is supposed to cover a profit on the labor of manufacture, boxing, etc., in addition to the buying commission. The bill brokerage, $\frac{1}{8}$ per cent, covers the charges of the bank, the discounting of the draft on London, and naturally is charged against the total invoice amount; the amount drawn for—Y4865.77—is the total amount of the invoice, which figured in English gold at an exchange of 2 shillings and 13-16 pence—2|0|13-16—the current rate of exchange, gives a sterling value of £503.1.0. The letters "E and O. E." mean "Errors and Omissions Excepted."

In figuring his laid-down American costs the importer must charge a correct proportion of the various charges against the three separate grades of tea, plus a correct proportion of the freight paid at destination. The exchange rate

of English sterling into American gold varies and must be figured at current rates of exchange.

Many importers of America prefer to do a direct business with Japan, agreeing to pay the commission houses so much per lb., American, for their teas, delivered. This simpler method of doing business, as far as the importer is concerned, appears to be gaining ground of late years, although there are many of our importers who cling to the method detailed.

In any case it is a pleasure to do business with these up-to-date business men of Yokohama and Kobe, European, American and Japanese, who, fully appreciating American conditions, strive to meet them. In China we are content to take the best we can get; in Japan the manufacturers do all they can to give us just what we want, and they generally succeed. Such is the difference in Japanese and Chinese methods as far as purchasing tea is concerned.

INDIA-CYLON.—In India and Ceylon conditions exist which are up-to-date in every particular in the matter of business methods. The growers are British and naturally do their trading under established British business rules, and, although these are somewhat different from American methods, they are easily understood by our importers.

India and Ceylon teas are grown, manufactured, and packed for shipment upon the plantations.

After having been stencilled with the garden name or other brand, and with the grading of the tea within, the cases are transferred by rail to Calcutta in India and to Colombo in Ceylon, where the goods are offered in lots for sale at public auction. This is the British system of doing the business, and it must not be imagined that, because the teas are sold at auction, the owners are forced to a sale in order to realize. Competition for the product of known es-

tates keeps the prices at figures that are usually remunerative to the corporation growers, but, in any event, limits are usually placed upon each lot, below which price the auctioneer will not sell the teas. In the great auction-rooms of the tea-markets sample chests are usually opened and the teas displayed for several days prior to the date of sale, so that buyers, brokers and others interested may have the opportunity of sampling any of the lots before making their offers, and are, by this means, placed in a position, before the sale date, to know just which lots to offer on in accordance with the orders they may have from England, the Colonies, Russia, America, France and other countries.

Auction sales usually occur once a week, and monthly circulars are mailed to tea-importers throughout the world, which circulars give statistics of the month's sales, conditions of the market, exportations and other data of interest.

Very many thousands of chests are offered and sold at these weekly auctions, and the buyers, after the transaction is completed, ship the teas to all parts of the world.

The auction system is an old one, and the conservative Briton clings to it, as he does to many other old-fashioned ways of doing things, notwithstanding that, under such a system, it would appear to be easy for buyers or brokers to combine in order to rule prices. In the London tea-market in Mincing Lane teas are bought and sold under the same system. Here some three million chests of tea, containing upwards of 300 million lbs., annually change hands, and most of this enormous business is "spot," that is, settled for, immediately after the transaction, by cash or acceptance.

In these great auction rooms sample chests of all cargoes are exhibited before sale, and the teas are usually sold "stored in the bonded ware-houses at the docks," although some lots are sold "to arrive." In the auction rooms scenes of boisterous commercial strife, particularly when market prices are ad-

vancing or declining, are quite common, reminding one of the scenes in the New York stock market or in Chicago's wheat pit.

It is, of course, quite possible for American importers to deal directly with India and Ceylon houses, and import their teas from the manufacturing concerns, and many importers are known to have direct dealings with the gardens. The majority of Indian and Ceylon teas, however, are consigned to American markets by owners or speculators, and sold to American wholesalers from sample.

American wholesalers usually favor teas grown on a certain estate, and of a certain month's plucking, and known, for instance, as "September" or "October teas." This is done for the reason that the pluckings of the gardens vary with the months quite materially both in style and cup qualities, and past experience with the teas proves that a certain month's pluckings from a certain garden give the better satisfaction.

The following extract from a Ceylon monthly circular report will give some idea of the tea-trade of Ceylon with the countries of the world. The report shows that the total export of Ceylon black and green teas for the year 1902 was close to 149 million lbs. as against a total of about 146 $\frac{1}{3}$ million lbs. in 1901; and when it is taken into consideration that the export of Indian teas for similar periods was greater than that of Ceylon, an estimate of the enormity of this British-Colonial industry may be had.

EXPORT OF CEYLON TEA

*As per Colombo Chamber of Commerce**Returns:*

COUNTRIES	BLACK TEA		GREEN TEA	
	1902—lbs.	1901—lbs.	1902—lbs.	1901—lbs.
To United Kingdom	102,899,489	105,497,339	644,443	237,231
“ Austria.....	58,592	50,958	-----	-----
“ Belgium.....	93,076	17,781	-----	-----
“ France.....	233,220	317,866	-----	-----
“ Germany.....	661,818	586,104	-----	-----
“ Holland.....	5,064	19,041	-----	-----
“ Italy.....	20,307	13,924	-----	-----
“ Russia.....	11,599,953	9,609,734	127,115	44,162
“ Spain.....	3,293	250	-----	-----
“ Sweden.....	90,107	65,104	-----	-----
“ Turkey.....	40,663	40,978	-----	-----
“ India.....	870,140	1,122,989	29,210	16,124
“ Australia.....	18,718,794	20,638,208	-----	2,976
“ America.....	5,048,137	3,704,335	1,968,456	797,796
“ Africa.....	564,278	305,730	1,200	-----
“ China.....	4,663,008	2,682,334	26,420	12,485
“ Singapore.....	218,163	147,560	-----	-----
“ Mauritius.....	72,659	55,376	-----	-----
“ Malta.....	333,636	312,633	-----	-----
Total export from 1st Jan.				
to 31 Dec. 1902	<u>146,194,397</u>	<u>145,188,244</u>	<u>2,795,844</u>	<u>1,110,774</u>

LOADING TEA

COLOMBO
CEYLON



Photo From Life by Mr. Alfred Auelsdorfer.

PART II.



TEA PROBLEMS.

CHAPTER V.

HOW TO TEST TEAS.

The expert tea-tester, or tea-taster as he is frequently called, has so long enjoyed his unique position in the commercial world and his avocation has always appeared to the layman to be so far beyond the reach of ordinary mankind that he, as a professional man, has become, so to speak, commercially hallowed.

There are few professions or commercial occupations that require such exacting qualifications as that of tea-testing, and there are fewer still that demand at the hands of those following them a more dexterous application of natural or in-born faculties. Few men, indeed, in these days of deteriorating natural senses are physically qualified to become expert in teas, or are sufficiently well endowed by nature to be able to make a success as tea-experts, and it is not at all surprising, therefore, that those who are naturally qualified to, and have, by personal effort, become expert tea-men should be the recipients of that commercial homage which is paid to them.

To become expert in tea-testing remarkably acute natural senses are absolutely essential; senses that, originally perfect, have not been weakened by abuse, disuse or disease; senses that are capable of culture in the highest degree, and that may be depended upon to serve their owner under any and under all circumstances. The senses of smell, taste, sight and touch are the stock-in-trade of the professional tea-expert, and these, added to the years of practical experience necessary to successfully qualify for the position, gain for him a high place in the commercial world; a right goodly

income, and a knowledge that his decision is very close to law in the tea-circles surrounding him.

Time was when the public tea-experts of the United States, like their brethren of Great Britain of today, were absolute masters of the tea-situation, and it was to such men that wholesalers were wont to apply for professional opinion and advice; but in this country, with its modern methods and advancing business ideas, these have gradually passed away and their places have been ably filled by the tea-buyers of specialty and wholesale grocery houses, and by the tea-brokers of the larger cities, who, as a rule, are both very capable of grading teas and of placing an exact commercial valuation upon them.

In view of the fact that the art of tea-testing is known to be a difficult one to master, few retail merchants ever attempt it, believing that, inasmuch as long apprenticeship to the trade, and unusual qualifications are indispensable, it would be useless for them to make the effort.

Expert knowledge and experience are, of course, necessary to the man who makes tea-testing a business or profession, for such knowledge added to experience is absolutely essential in order to grade teas accurately and to place a valuation upon an Oriental invoice to the cent or fraction of a cent per lb., but for a retail merchant to gain a knowledge of the art sufficiently great to enable him to test the few kinds and grades of teas that are in use in his own particular market, and to place himself in that position where he can protect himself in the matters of grades and values, is far from being so difficult a matter as is usually believed. It is, in fact, so simple and inexpensive, so interesting and educating withal, that it is really strange that so few retail merchants undertake to make such a knowledge a part of their business education.

The following attempt at a description of a tea-test has

been written for the purpose of aiding those retailers who desire to gain a better knowledge of teas generally, and who wish to become fairly conversant with the art of testing, but it must be fully understood, by those who would progress, that practice will do much more than any written directions to bring about perfection.

Faulty though it may be, the *modus operandi* will, at least, serve to create a foundation upon which a knowledge of the art may be built; a knowledge which every retail dealer would serve his own best interest to possess; for not only would such a knowledge assist him in making and saving dollars, but it would be a means of aiding the cause of better teas, and of giving an impetus to the consumption of the beverage; a beverage which is, without doubt, the most health-giving and generous known to the human family.

The utensils necessary for testing teas are inexpensive, easily procured, and take up no valuable space in the store room.

A tea-kettle, an even-balance scale, a five cent *silver* coin, a half-dozen porcelain testing-cups or triers, a silver or silver-plated tea-spoon, a finger-bowl, a half-dozen trays or sample-pans and an ordinary table would constitute an outfit good enough for all practical purposes, and with these, and a little patience, a little experimenting and practice, the retailer will quickly realize that he can test teas sufficiently well for all his business requirements.

The thin, white porcelain tea-cups or triers and the sample-trays or pans can be procured for a small sum from any wholesale grocer or tea-specialty house; the balance of the articles specified are, more than likely, at hand. After having procured the necessary utensils a start is ready to be made, but, before making it, it will be well to take into consideration the following important suggestions *and remember them.*

Light plays an important part in tea-testing, and should

always be taken into consideration. A place for testing should be chosen where the light is steady and true, and will *equally* surround each cup under examination; for in comparing teas, or in matching one tea with another, each cup must have equal light to bear upon it, otherwise the colors of the liquors cannot be successfully compared. Direct sunlight must be avoided, as well as artificial lights of all kinds, for teas cannot be examined in the cup, or in the leaf, for that matter, except in good broad day-light.

The tea-kettle *must* be perfectly clean and free from odor of any kind. A new kettle, if used, should be boiled out several times before using, and perfect sweetness ensured.

The scale must be true; any kind of an even-balance scale will do, large or small, provided that it will weigh *accurately* such a small amount of tea-leaves as is represented by the weight of a *silver* half-dime.

The tea-cups, or triers, should be washed perfectly clean and wiped until dry with a clean, sweet cloth—that is, a cloth which has no odor of muslin. It is well to thoroughly rinse the cups in hot water and dry them immediately after use, for if the infusion is allowed to stand in them for a few hours a deposit of coloring matter will result which will indelibly stain the brilliant whiteness of the porcelain.

The tea-spoon should be treated in the same manner as the cups so that it will be perfectly clean, odorless, and dry. Silver or plated spoons are very liable to discoloration, therefore they should be well rinsed and dried immediately after use.

The silver five-cent piece may be of either United States or Canadian currency; and the sample-pans or trays should be large enough to show a good sized surface of the samples; similar pans, in fact, to those which are ordinarily used in wholesale houses for exhibiting samples of teas and coffees.

These careful preparations and precautions *against odor*

and impurity may appear to be somewhat punctilious, but when, it is fully realized how very delicate the tea-leaf is, and how easy it is for the operator to mistake some foreign odor for an imperfection in the infusion under examination, the reason for them will be more fully understood; besides these are the precautions taken by tea-experts generally, and it is best to make a beginning in the regulation way.

It is customary for experts to use distilled water when drawing teas, or a water that is known to be soft and free from chemicals, minerals or impurities. Such water is essential to the expert in order that he may be able to draw the several intrinsic qualities from the leaf, and so place a commercial valuation upon it; a valuation based upon each and every one of the qualities exhibited in the draw. It is a well known fact, however, among tea-men that different waters have different effects upon teas. Young, flavory, high-grade leaf of any kind or make of green or black tea will yield its full fragrance, flavor and strength when infused in pure, soft water; while the same leaf, if infused or drawn in hard water, will, most likely, fail to exhibit the qualities discovered by the soft-water infusion. This is owing to the action upon the leaves of such chemicals or minerals as may be held in solution in the hard water; which action either destroys the sensitive qualities of the leaf or abuses them to such an extent that they become unrecognizable. Highly-fired teas, or teas of the rougher, harsher sorts, give better results in hard water, for they are better able, on account of their higher fire or rougher characteristics, to withstand the action of chemicals, or minerals.

Writers upon the subject of testing teas usually insist upon advising the use of distilled or perfectly pure water for the purpose. While such a method will invariably discover the intrinsic qualities of a tea, and prove up a good or a poor tea to better advantage, it will not guide a retailer in the

choice of a tea that *will be perfectly suitable to the water of his district*. The better plan for him to adopt, therefore, is to test his teas in water similar to, or exactly like, that in which the beverage will be made by his customers.

This, upon its face, may not appear to be good advice, but when it is realized that the retailer's only interest in the test is to secure teas that will give the best of satisfaction to his trade, it will appear that to test them in the same kind of water that will eventually be used by consumers in making the beverage will give him a better idea of their suitability, for if the teas draw well in the test when district water is used, they will drink well also.

The point has now been reached, we will say, when the actual testing begins, and in order to facilitate the explanation it will be supposed that the merchant desires to match up a Japan tea which he has in stock and wishes to replace as nearly as possible. It will be best to examine two samples only at a time for the reason that, until the novice has gained some experience in the art, he will find that some little time will have to be spent over the first two cups, and, during the time so expended, the third or remaining cups will have grown cold, and much of the aroma of the liquor and of the leaves have escaped.

The first part of the operation is to fill the kettle with fresh water, as specified, and place it upon the stove to boil. This will, of course, take a little time, but the interval may be occupied to advantage by a careful examination of the two samples of dry tea-leaves which are to be tested. This may have been done previously but it will be well to occupy the spare time in comparing the samples again, for the renewed examination will freshen the memory and materially aid the judgment which will be passed, later on, when the liquors are before the tester and his nose is over the cups.

In making an examination of the "style," or general ap-

pearance of the samples, spread the leaves over as large a surface as possible in the sample-trays. It will be well, before doing this, to write the brand or mark of each sample upon a small piece of paper; place the papers so marked face downwards in the bottom of the trays and cover them up with the tea-leaves represented by the papers. This will serve to distinguish one sample from the other after the final judgment has been passed, as well as to prevent the rendering of a biased decision, which might occur were either of the teas known to the tester. This having been done, note carefully how the samples compare one with the other. See if the leaves are about equal in size and are equally well rolled, twisted or curled. Ascertain if there is any difference in the color or shade of the leaves, or if one of them looks fresher to the eye than the other. Take up a quantity of the leaves in the hand, *gently* press them, and note if one is more springy or more flexible than the other. A new tea will give under *gentle* compression and return without crumbling or breaking up in the hand. An old tea will break up and show considerable dust. Shake the pans and gently spread the leaves apart with the fingers and observe if one sample contains more tea-dust than the other, or more sticks or stalks. Reject a dusty tea at once, for it has either been "*filled*" with dust or siftings to cheapen it, or its quality is so poor that it has not been considered profitable to take the dust out before shipment from the Orient. Make a mental note regarding the styles or general appearance of the two teas as a whole; perhaps they may be equally good, or one may be a trifle poorer than the other in this respect. If the tea which is to match the retailer's stock is undeniably inferior in style it will be better to pass it at the beginning, for, although style is by no means an indication of drinking qualities, many consumers look for stylish teas, and it is not difficult to procure

samples of teas which will closely match the style of the stock tea.

In the examination of teas, side by side, the eye very quickly becomes educated and, after a short period of experimenting and practice, the retailer will discover that he can readily choose the better styled tea from the poorer, even when the two are closely matched.

Style having been passed upon, place the two trays containing the samples on the table, and, as a further proof in the test, should the teas be known, endeavor to place them so that one sample cannot be told from the other; the papers under the leaves, which specify the brand of each, will prevent eventual confusion.

Place the drawing cups in front of the trays, close to the edge of the table. Weigh out as many of the leaves as it takes to *exactly* balance the five-cent silver-piece on the scale, and put that quantity of each sample into the cup which is opposite to it, being particularly careful, during this part of the operation, not to get the samples mixed in the cups; in other words, arrange each sample so that the leaves in each cup will surely represent the teas which are in the trays opposite each cup.

By this time the water will be boiling, and to ensure the best results, it should be used about one minute after the steam comes from the spout of the kettle; *briskly boiling*, in fact. If water from the kettle which has *just commenced* to throw off steam is used the tea-leaves will float, and this will prove that the water is not actually boiling. In high altitudes this will be especially noticed.

The water having reached the proper boiling point, the kettle is ready to be taken off the stove, and, in the act of removing it, a portion of the water should be hastily poured through the spout into some handy receptacle in order to clear it of any impurities or scum which may have lodged

there; but no time must be lost in doing this. Now pour the boiling water gently over the leaves in the first cup until it is about half full; then do the same with the second cup; coming back quickly to the first cup and filling it up with the water almost to the brim, and immediately afterwards doing the same with the second cup. Put the kettle quickly away and take a seat directly in front of the cups in such a position as will not prevent the light from striking the cups equally and evenly, and, as soon as seated, skim off with the spoon any stems or scum which may be floating upon the surface of the liquor. Now watch the leaves slowly unfolding at the bottom of the cups—"the agony of the leaves," as some one has put it—and inhale the rising steam from first one and then the other. How quickly the essential oil of the leaves yields up its fragrance to the influence of the hot water, and how grateful is the aroma as it rises to the nostrils with the escaping steam.

As the steam arises form a mental judgment with regard to the merits of the aroma of both, and carry the result in mind. There is almost sure to be a difference in the flavors, and one of them will, most likely, impress the operator as being the more pleasing to the sense of smell. The leaves are, as yet, a little too hot to smell comfortably, as but a few moments have passed since the boiling water was poured on. Now move the leaves very gently with the teaspoon and note the difference in the color of the liquor after this is done. From the bottom of the cups a darker shade will likely arise. The liquor of one of the samples may be of a darker shade of color than the other. In the case of most light-liquoring teas this will be against it, *for a darker shade of color must not be mistaken for greater body or strength.*

A half-minute, or so, has passed and the leaves are now cool enough to smell. Take up with the spoon as many of the leaves as it will conveniently hold, pressing them gently

against the side of the cup with the spoon in order to assist them into it; then tilt the spoon and allow the liquor to run out of it into the cup again, and quickly apply the spoonful of leaves to the nostrils; then inhale the aroma, and note, as this is done, and as far as possible, whatever characteristics it may possess. The aroma arising from the leaves may be flavory, freshly delicate, toasty or otherwise pleasing to the sense of smell, or it may be harsh, insipid, characterless, flavorless, flat, metallic, stale, or in some way unpleasant. Put the spoonful of leaves into the cup again and rinse the spoon in the liquor of the cup from which the leaves have been taken so as to prevent the transfer of the flavor from one cup to the other. For this purpose experts usually have a finger-bowl filled with hot water conveniently placed so that the spoon may be readily rinsed. Now repeat the operation with the leaves of the second cup and continue to do so with first one cup and then the other until there can be no question in the mind as to the merits of either sample. A difference in odor and flavor will surely be noticed unless the two samples are a perfect match which is not often the case.

Which sample is the sweeter; the more flavory; the pleasanter to the sense of smell? If the teas are quite unevenly matched, the better of the two will surely prove itself to the beginner by its superiority of flavor and aroma, even if he is unaware of the reasons for it, or is unable to define the superiority in technical terms. It is not to be expected that he can pronounce one of the teas to be old crop and the other new; nor can he assert that one is first crop or pickings, and the other second, or third; but all this, and much more, will come to him with time and practice. Enough for the present that he can distinguish a difference between the two teas and specify the one which is the better of the two in so far as flavor goes. Practice will bring skill, for the sense of smell is quite easily trained to work of the kind.

In the test before us the liquor is, as yet, too hot to taste, but *now* is the time to examine it.

The color of a liquor is all important. To the experienced eye of the expert it reveals much that is necessary in a determination of values. The various shades of color exhibited indicate, approximately, at least, the age of the leaf when plucked from the shrub and the length of time that has elapsed since it was manufactured into commercial leaf. In other words, the expert reads, to a certain extent, the life history of the leaf in the color or shade of its liquor. It tells him, as much as other demonstrations, whether the leaf was young, medium aged or old upon the bushes at the time of picking; whether it is of first, second or third pickings, or whether it is new crop, that is, the latest crop, or a year or more old as far as crop is concerned. While liquor-color determinations are always subject to qualification by past and future considerations in the cup and otherwise, it will be seen that the color of the infusion is an important factor in a cup-test, and it should, therefore, be carefully examined and considered before judgment is passed.

The lighter the liquor of light-liquoring teas, the younger the leaf and the better the tea, as a rule, although in a test for the purpose of matching a tea that has given satisfaction it is not good policy to over-match, that is, to select a tea that is younger and, therefore, of lighter colored liquor, even if such a tea can be purchased at an equal price, for consumers will surely notice the difference and will be very apt to discredit good intentions; besides such a tea may be lacking in other qualities possessed by the stock tea. It is always best, therefore, in matching up a tea that has given *perfect satisfaction*, to select one that shows equal qualities all around—such a tea is a match; a “dead match,” in trade parlance.

A clear, greenish-yellow or greenish-golden color, bright and lustrous to the bottom of the cup, denotes a young early-

picked Japan leaf without that excess of tannin which age brings; while, to go to extremes, a dull, lifeless, dark or brownish-yellow color, lacking in brightness or lustre, denotes an old or a low-grade Japan leaf.

Now note the difference in the color of the liquors before us; one is, perhaps, the brighter and the lighter of the two; there is a life, a lustre, a pleasing brightness about one of them, difficult to describe in words, but easily identified by the eye. The other is also of good color, but not quite so light or bright, a trifling difference, perhaps, but yet a difference sufficiently great to enable the novice to distinguish between the two. As the liquor gradually cools, both are likely to darken, for the hot water is extracting the tannin from the stalks and veins of the leaves and a darker shade will, in consequence, become noticeable. One of the samples is "*standing up*"—that is, holding its original light color—better than the other, and this fact proves that it is the younger and, therefore, the better leaf of the two. The poorer of the two will darken more quickly, proving that it was older when picked from the tea-shrub, and, therefore, inferior. Which one of the two under examination has the poorer liquor?

The liquor is cooling fast and to taste it before too much tannin has been extracted is now the object. Tea-tasters never swallow the liquor, for it is claimed that to do so will injure the sense of taste for the time being. They allow the liquid to rest upon the palate; rolling it around in the mouth in the same manner as the wine connoisseur tastes wine; and, after having arrived at their determination, they eject it from the mouth into a tea-cuspidor; a tall, wide-mouthed utensil especially made for the purpose, which they place upon the floor in such a position that its mouth will come up directly between the knees. The object of tasting the liquor is to determine the drinking qualities of the tea, that is the flavor, body, pungency and strength, and to qualify the recent smell-

ing examination by taste. The body of the liquor is really its thickness in the sense that ordinary water is thin, and to add some ingredient to it which it will take up and hold in solution will thicken it. The appearance, or color, of the liquor cannot justify an opinion as to body or strength. A very high-grade Japan, Moyune Gunpowder or Young Hyson has a remarkably light-colored liquor, so much so, indeed, that it would naturally suggest a lack of body and strength. This, however, is far from being the case, for the small, young and tender leaves of a high-grade tea have not the percentage of tannin coloring matter in their veins and stalks which older leaves possess, but they possess the strength of sap as well as all the other virtues of the tea-leaf in their youngest and, therefore, in their highest degree. Extremely light-colored liquor, therefore, must not be taken as evidence of a lack of other cup qualities, and for this reason the liquor must be tasted. On the other hand, to go to extremes, a heavy-looking, dark-colored liquor, in the same kind of teas, must not be taken as evidence of body and strength. Any old crop tea, or low-grade leaf, will draw poorly, that is, darkly and thickly, for the excess of tannin in the thicker veins and stalks of an older leaf will be quickly extracted by the hot water, but, for all that, its thickness and heaviness is not the body and strength that comes from the sap of the leaf, as the acrid taste will prove.

To return to the two cups before us. Take up a teaspoonful of the liquor of the first cup; see that it is not too hot to take into the mouth comfortably, for to scald the mouth will greatly interfere, for the time being, with the sense of taste, and, therefore, with the test. Then take the spoonful as a whole into the mouth by drawing it with a quick inward breath between the lips; roll the liquid around with the tongue, allowing it to come in continuous contact with the palate. While doing this make a mental note of its strength; note,

if possible, if it possesses a roundness or fullness, so to speak; a smoothness, a piquancy or pungency. Note, on the other hand, if its taste is harsh, metallic, insipid, grassy, fishy, smoky, acrid, puckery or in any way unnatural or distasteful. Eject the first spoonful and try it again; confirm the first impression if possible, and, should there be a doubt, try another spoonful. *An impression either favorable or unfavorable should have been formed by this time.* Now do likewise with the second cup; eject the first spoonful and try again. Has it the strength, the body, the roundness or as good a flavor as the first cup? *Is it as pleasing?* Does it appear to taste entirely different? Is it "toastier" or less "toasty"? Has it more "brassiness?" Does it appear to come out of the test with superior or inferior qualities taken as a whole? Try another spoonful of each if undecided, for, perhaps, it is difficult to find much difference; this will confirm the original impression; if not, try again and again until an opinion is positively formed.

"Toasty," that is, highly "fired" teas will show up in the cup to better advantage—that is, taste better—in hard, harsh water, than low-fired, delicate flavored teas, for the hardness of the water will kill, in a great measure, the flavor of a very delicate tea. Pure, soft water will, on the other hand, bring out the full flavor of a delicate tea, and it must be remembered that the test is being made to choose a tea suitable to the water of the district. Select, therefore, a highly-toasted tea for a hard water, and a low-fired, finely-flavored tea for a soft water country.

The beginner has, by this time, formed an opinion of the merits of the two teas by the smell, the color of the liquor, and the taste, and he has concluded, to his satisfaction, which is the better tea of the two as far as he has gone. He should now be able to tell whether one tea is close enough to the other in every particular to warrant a decision that one tea

is a good match for the other; or he has come to the conclusion that there is too much difference between the two teas in one essential qualification, or in two, or in all. In the one case the teas will match; in the other they will not.

'A very good way for the beginner to do is to forward a sample of the tea he wishes to match to several wholesalers, with the request that they forward to him samples of a match for it, or for a grade higher or lower. With these he can experiment to his heart's content, and can prove his own progression in the art of tea-testing. He will have, in the samples so obtained, the opinions of several tea-experts to guide him in the test, which will be of great benefit and advantage. This piece of advice is, of course, confidential.

The examination of the two teas has not yet been completed; there yet remains an inspection of the leaf, that is, of the leaf which has been unfolded in the infusion. Take a spoonful out of the first cup and spread them out; note their size, form, uniformity and color. The leaves of a high-grade tea are quite small and a great many of them are unbroken. Of course it cannot be expected that the unbroken leaves will be of equal size; such a thing would be a physical impossibility, but they will be, in a high-grade tea, perfectly formed and *fairly* uniform in size. The color should be natural, or very close to natural, and the tiny veins should show up to advantage. The broken leaves should prove to be the greater portion of a whole leaf, and both broken and whole leaves should show perfect corrugations or serrations at the edges.

On the other hand, to go to extremes again, the low-grade leaf is quite large in size, quite dark in color, suggesting a rank growth; ragged, broken and quite irregular instead of uniform in size, so that the size of the infused leaf will give a fair estimate of the age of the leaf *at the time that it was picked*, while its condition and its liquor-color will give a fair

estimate of the time which has elapsed *since it was picked and fired.*

Now take a spoonful out of the second cup and spread them out. Which sample has the smaller leaf; the brighter leaf-color; which the least quantity of stemmy, stalky or broken leaves? Which of the two shows up in this last test to the better advantage? Which, after having taken everything into consideration, gives evidence of being the younger leaf; the better tea?

The test is now complete, and the operator may look to see which tea is his own, and which the one intended as a match; the slips of paper hidden beneath the dry tea-leaves in the sample-pans will tell. Now, does the stranger sample match? Is it superior or inferior? If either, the process must be gone through again with some other sample, for a match has not been secured.

It is always best to match up a stock tea as closely as possible, for, strange as it may appear, and as already intimated, there are many consumers who, having acquired a taste for a certain tea, will accuse the dealer of giving inferior quality if he changes his grade for the better.

The time occupied in making the above test is very much shorter than will, naturally, be supposed and, in the event of it becoming necessary to go over the process again, the dealer may rest assured that his time will not be wasted, for, with each test, good experience will be gained; knowledge will be acquired; a deeper interest will be awakened; and proof will be forthcoming that the operator's senses of smell, taste, sight and touch can be put to commercial use and to his personal advantage. The interest in testing, and in teas, will grow, and with it will come practice; practice will surely develop the acuteness of the four senses involved, and beget good judgment.

Tea-testing is, at first, interesting; becomes fascinating,

and is decidedly profitable. It permits the retail merchant to protect himself fully in point of grades and values; it assists him in the selection of teas that will prove to be suitable to the water of his district; and it places him in that position where he can keep his stock uniform and suitable at all times.

It has the advantage, also, of occupying spare time to a profitable purpose, and of providing a recreation, without loss of time, in a pleasurable duty.

Tea-testing is only unhealthy when the operator is confined to the table at all times. Experts, who make a living at the profession, feel the effects of over-absorption and confinement, but there is absolutely nothing injurious in a daily test of an hour or so.

The real worth of a tea-test by the cupping process rests in the ease with which the value of, and the difference between two or more teas of *the same kind* may be determined.

For the purpose of arriving at an estimate of values, as well as of discovering the differences that may exist between teas, it is, of course, necessary to draw teas of *the same kind* against one another, so that the test may have the opportunity of showing up the differences in individuality and in the qualifications of teas of the same kind. For such purposes it would be useless to draw teas of *different kinds* one against the other; a China green, for instance, against a China black: a Gunpowder against an Indian; a Congou against a Japan; for the difference in the general characteristics of teas of different makes is so great that no comparison of commercial values can be made in this way.

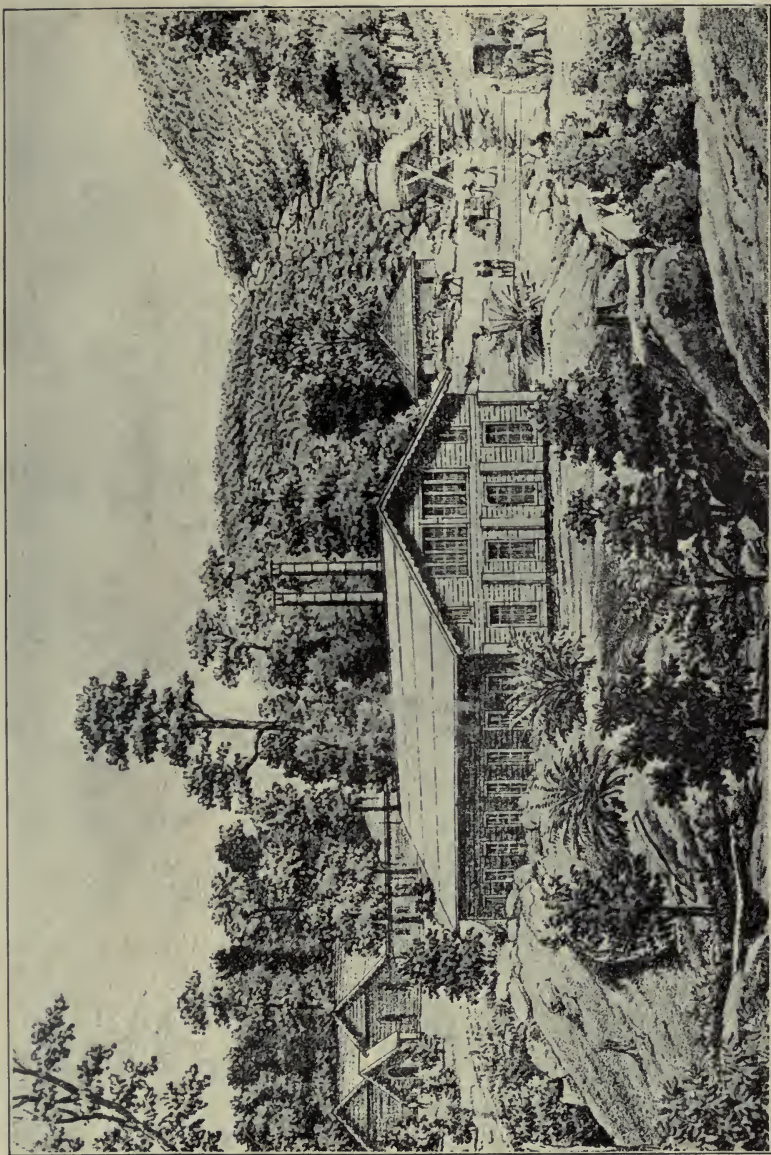
To draw teas of different kinds against each other, however, would tend to teach the novice the difference in liquor-color, body, strength, aroma, taste, and leaf that exists between teas of opposing character, and, in possession of such a knowledge, he would be in a position to describe the varying

characteristics of the different kinds of teas with more exactness.

The question "which is the best kind of tea to drink?" is frequently put to tea-dealers. The answer to such a question could hardly be any other than one that would suggest the advisability of judging by individual liking or taste, but, in order to correctly describe the difference between an Oolong and a Congou, a Gunpowder and a Japan, it is necessary to know the difference, and be able to describe it. In the ordinary course of tea-testing such differences are eventually learned, but, while experiments of the kind are never made for the purpose of securing a determination of values, a few tests of this nature may be advocated for the reasons given above.

The foregoing description of a tea-test has related, as originally stated, to light-liquoring Japan teas. In testing the China green and black sorts, Ooloongs, Ceylons, Indias, and others, the same procedure is necessary, but a judgment in all cases is qualified by the separate characteristics of the kinds. The varied characteristics of the numerous kinds and innumerable grades of teas will hardly permit of accurate individual descriptions or of minute comparisons, for, even were an attempt of this kind made, but little good would be accomplished, inasmuch as the qualifications of teas vary, in a measure, with each succeeding season. Hard and fast rules, therefore, cannot be established for guidance in the matter of a judgment of qualities and values. The beginner, after having mastered the general principles of tea-testing, will quickly realize that the value of a tea depends more upon its drinking qualities than upon its appearance or style. Practice with the different kinds of teas will soon teach him to distinguish differences in drinking qualities as well as in styles, and, this end accomplished, the rest becomes a mere matter of experience, which cannot be obtained from a printed page.

The retailer's object in learning to test teas is self-protection in that he may know for himself that the drinking qualities and appearance of his chosen teas are just what he wishes them to be. In his test he has matched the goods to his own satisfaction, yet he will find it difficult to state whether his Congou is a Ning-chow or a Foo-chow; his Gunpowder a Moyune or a Hoo-chow; his Japan a Kobe or a Yokohama. Such distinctions in the classification of individual kinds are, however, important, for a Ping-suey Gunpowder cannot be expected to match a Moyune; or a Paklum Congou to match a Ning-chow, etc. Experience with the different district teas or classes of individual kinds, alone will teach the differences, and in his inexperience, or until experience has been acquired, it will be for the beginner's best interest to find out by inquiry the exact classification of the different kinds of teas he is using, so that, when requesting samples from wholesale houses for the purpose of testing and matching with a view to practice or to purchase, he may be able to exactly specify the district or distinguishing names of the teas desired.



A TEA ESTATE AND FACTORY IN CEYLON.

See page 139.

CHAPTER VI.

WHERE TO BUY TEAS.

To purchase teas intelligently, that is, to know at the time of purchase that the value is there, and that the goods are just what they should be, is one of the many difficulties connected with the tea-business with which the inexperienced retail dealer has to contend.

Few retailers have the time or opportunity to make a study of teas, or to analyze the various tea-problems that come before them from time to time in a business way, and, owing to the consequent lack of knowledge, are in no position to protect themselves in the matters of grade, suitability and value when purchasing. Few are able to examine a tea, as it should be examined in order to form an opinion of its merits, and fewer still are capable of putting a sample to the several commercial tests, and of passing judgment upon it, or upon its suitability as a match for the grade they have been using and wish to replace. Grades that are, in reality, far apart in value look very much alike to the inexperienced eye, and to purchase from a judgment of the style, or general appearance of the dry leaf, is more than likely to lead to serious consequences, for it is the cup, or drinking, qualities that go the furthest in a determination of the value, or of the suitability of a tea.

The variety of kinds, and the greater variety of grades of each kind, into which the green leaf is made; the lack of general knowledge as to production and the various processes of manufacture; the great difficulty of placing an exact, or true, value upon the commercial leaf; and the want of knowledge as to cup-testing are all important factors which com-

bine to make tea a most difficult article to purchase, and, for these reasons, the dealer will be prepared to admit that the flavory leaf is one of the most difficult articles to purchase intelligently of all the long list of goods carried in a modern grocery stock.

A merchant can readily judge between a good cigar and a poor one by examination, or by smoking; he may also examine and taste a sample of canned fruit, or vegetables, and form a very fair estimate of the worth of either; he can easily test a sample of vinegar, or try the butter which is offered to him, and arrive at a satisfactory conclusion with regard to the value of these goods; in fact, he is able to judge, with some degree of accuracy, as to the quality and value of nearly every article he carries. In addition to his own experience and knowledge he can consult the numerous trade journals and reports which are regularly published and keep himself carefully posted as to the ups and downs of any article that is subject to market fluctuations, or is regulated, in price, by season, or by the law of supply and demand, and, by so doing, he is prepared, before buying, with a good knowledge as to the market values of staple, fancy or proprietary goods.

But in the purchase of tea it is all very different; for, without personal experience and knowledge, he has nothing upon which he can depend to aid him in his judgment; no guide that will even assist him in making a determination; therefore there is nothing left to him until knowledge is acquired, but to rely upon the experience, and, of more importance yet, upon the integrity of the seller. It is true that he will find tea quotations in many of the trade journals, but these quotations are, because of the actual impossibility to make them otherwise, very indefinite, and, therefore, practically valueless, if not misleading.

Trade journal tea-price lists usually quote Oriental gradings, and with these the retailer is not familiar. These grad-

ings are known as "*Fancy*," "*Extra Choicest*," "*Choicest*," "*Choice*," "*Finest*," "*Fine*," "*Good Medium*," "*Medium*," "*Good Common*," "*Common*," and others, but where the line is to be drawn between a "choicest" grade and a "choice;" or between a "good medium" and a "medium" is most difficult for the retailer to determine. Even if he could be guided by these quotations, the gradings will not advise him as to cup qualities, for the "choice" grade of one importer is not at all likely to match the "choice" grade of another importer *in the cup*, even if it does match fairly well in style, for all importers do not purchase from the same tea-growing districts, or from the same manufacturing firms in Japan, or exporters in China and elsewhere. In the Orient, where the grading of the manufactured leaf is made, these terms, which are intended to define the gradings, are understood; in fact they are terms used by Oriental commission houses and exporters in making their quotations to importers in the various countries where teas are sold. To make use of these terms to the retailer is, therefore, useless, for, even if understood, they are no guide to one who wishes to purchase teas intelligently.

The many and varied difficulties in the way of purchasing teas with an accurate knowledge of what is being done, have long been recognized by the retail trade, and the practice of relying upon the seller's judgment, or upon his brands, has resulted; a practice which, although it may be advantageous in many ways, can hardly be called a business proposition, and inasmuch, therefore, as the practice has become so general, and the unbusiness-like nature of it fully recognized, an analysis of the position of the retailer in his connection with, and dependence upon, the wholesaler, will, no doubt, be interesting.

For the sake of argument, but more particularly for the purpose of analyzing the retailer's position in the premises, we will assume that he, as a buyer, knows very little about

teas, or about tea-values; we will concede that he is in no position to protect himself, and that he is forced, by the exigencies of the case, to place himself absolutely in the hands of the seller. We will acknowledge, also, that the purchase of his regular tea-supply is a matter of simple confidence in the wholesaler's ability and willingness to act fairly and intelligently in the transaction; to ship a suitable grade of goods, and give an even value for the price charged.

Looking at such a situation from a strictly business standpoint we must admit that it is a poor one for any intelligent buyer to be placed in, but it is, in reality, the position in which many thousands of retailers find themselves, and one in which they are likely to continue to find themselves until ample study of the subject has been made, and that knowledge and experience gained which is sufficient to protect, where protection is needed.

In the tea-trade there are two recognized competitive classes of wholesalers, both of which are continuously striving, one with the other, for the trade of the retailer; and it is the custom of each, in the furtherance of individual interests, to present arguments such as are likely to be conclusive, or, at least, sound enough to influence the judgment of the dealer, and gain his order.

The arguments and claims set forth by these opposing classes, are, in each case, strong, well-advised, and calculated to bring results. Each is thoroughly convinced that his claims for recognition by the dealer are more worthy of consideration than those of his business rival; the claims of both bear the imprint of truth; are reasonable and sound from a business standpoint, as far as they go, and it is, therefore, a difficult matter for the dealer to judge between them.

In order to canvass the matter thoroughly and arrive, if possible, at a satisfactory conclusion in so far as the individual interests of the retailer are concerned, it will be neces-

sary to quote, and then to examine, these claims and arguments at length, at the same time, giving to each class the consideration to which it is entitled.

In this connection, and before an analysis of the claims and arguments of both Wholesale Grocer and Tea-Specialty House is attempted, it will be well to enter a protest against the habit a great many retailers have of purchasing tea from the first salesman who happens to come along. Such a habit cannot be too strongly condemned, *not for the reason that the retailer is apt to suffer in point of value*, but for the reason that promiscuous buying will do more than anything else to ruin a retail tea-trade, for teas should be, at all times, as nearly alike as possible; an impossibility where indiscriminate or hap-hazard buying is done, therefore, if the retailer is not in a position to know *exactly* what he is doing, *it is to his best interest to confine himself, when purchasing teas, to some one importer.*

THE WHOLESALE GROCER'S CLAIMS FOR RECOGNITION.

ARGUMENT No. 1.—The Wholesale Grocer claims that, being on an equal footing with the Specialty House in the tea-producing markets of the Orient, he is able to import his teas at an equal laid-in cost, and is, therefore, at no disadvantage in this respect.

ARGUMENT No. 2.—The Wholesale Grocer claims that he has a decided advantage over the Specialty House which ships to the retailer from a long distance, owing to the fact that the freight on teas by steamship and rail from Oriental shipping points is about equal to all ports of entry throughout the United States; therefore the retailer, who purchases teas from far-away home markets, has a heavy rate of local

freight to pay, even if laid-down prices are made; against a trifling rate from his natural, that is, his home jobbing market.

ARGUMENT No. 3.—The Wholesale Grocer claims that, although he may not carry so extensive a stock, or so great a variety of grades, as some Specialty houses do, he, at least, carries a stock and variety of grades sufficiently large and extensive to supply the full needs of any, or all, of the retail houses tributary to the jobbing point at which he is located.

ARGUMENT No. 4.—The Wholesale Grocer claims that selling expenses, that is, the salaries and traveling expenses of salesmen, are a part of the cost, and, as such, must be added to the laid-in cost of the goods he sells; and, that inasmuch as his salesmen have a much greater variety of goods to offer and sell, their individual sales must, necessarily, be much greater in dollars and cents than the individual sales of the salesmen of the Specialty house; hence his percentage of selling cost to be added to the laid-in cost of teas is much less than that of the Specialty house, and he is, therefore, able to figure that much closer in making his selling prices.

ARGUMENT No. 5.—The Wholesale Grocer claims to have an advantage over his business rival in the fact that he is near to, and, at all times, in close touch with his customer; that he has made, and is always making, or ready to make, an especial study of his customer's requirements; that he is in a better position to judge as to the kinds, grades and qualities most suitable to the demands of the consumers within his business jurisdiction; and that he is able, and always ready and willing to advise and assist the retailer in the selection of teas which will prove to be satisfactory.

ARGUMENT No. 6.—The Wholesale Grocer claims that it is never his intention to over-stock, or over-load, a customer with teas, as many Specialty houses attempt to do, for, being in frequent and close touch with the retailer, and with the community in which the business is done, he is in a first class position to realize the financial conditions prevailing at all times, and does not wish to see a patron weighted down with an unnecessarily large stock under any conditions.

ARGUMENT No. 7.—The Wholesale Grocer claims that, although indirectly, it is certainly to the retailer's best interest to purchase teas from him, for the reason that to do so will keep the trade and its profits at home, instead of sending both to some far-away point; and that this profit, being circulated at home, benefits the home community at large, the retailer included.

THE SPECIALTY TEA HOUSE'S CLAIMS FOR RECOGNITION.

ARGUMENT No. 1.—On the other hand the Specialty Tea Jobber claims that inasmuch as he goes to the Oriental purchasing markets with a much larger order than that of the Wholesale Grocer, he is in a position to command lower purchasing figures and, in consequence, is able to quote lower prices, on equal grades, to the retailer.

ARGUMENT No. 2.—The Specialty Jobber claims that he is "first hands," that is, that he buys his teas directly in the Oriental markets, and sells them directly to the retailer, so that, by purchasing from him, the retailer saves the "middle man's" profit; that is, the profit of the Wholesale Grocer.

ARGUMENT No. 3.—The Specialty Jobber claims that his

stock is larger, and is composed of a greater variety of grades than that of the Wholesale Grocer, and, in consequence, he is able to show a stronger line for the retailer to select from, and to supply all of his demands to a much better advantage.

ARGUMENT No. 4.—The Specialty Jobber claims that he makes a greater specialty of teas than the Wholesale Grocer; that his knowledge of the trade is greater; and that his stock is selected to better advantage. For these reasons he claims to be in a superior position, and can go before the retailer with a greater knowledge of his requirements, and fill his orders with goods that are better calculated to please in point of quality, suitability, uniformity, and price.

ARGUMENT No. 5.—The Specialty Jobber claims that his salesmen are, upon the average, better educated in the line; are much better posted upon the subject of teas generally than the salesmen of the Wholesale Grocer; and are, therefore, in a position to talk more intelligently upon the subject with the retailer; are more able to match up teas or samples, and supply him with grades more suitable to his requirements.

ARGUMENT No. 6.—The Specialty Jobber claims that the Wholesale Grocer is compelled to get a large profit on his line of teas in order to “average up” the small margin of profit which he makes on staple groceries; while he, on the other hand, having nothing but teas, or teas, coffees, and spices to sell, is not placed in such a position, and, having no small profit goods to “average up” upon, he can the better afford to sell teas at a smaller margin of profit.

These are a few of the stronger claims and arguments which are frequently advanced by the opposing classes of tea-

wholesalers when attempting to influence the judgment of the retailer in an endeavor to win his favor and secure his trade. It must, however, be fully understood that the wording, as used above, is simply illustrative of the positions assumed by each class, and that the arguments, when offered, are not at all likely, for obvious reasons, to be expressed in identical language. The *import*, however, of the several claims will be found to be identical with that expressed above, so that, for the sake of an analysis of the claims, it may safely be taken for granted that the above wording correctly indicates, at least, the positions assumed by both Wholesale Grocer and Specialty Jobber.

In whatever form, or in whatever language they may be put before the retailer, it must be admitted that such claims for recognition, when advanced by the bright representatives of the respective classes, are not easy to verify or deny, and, although the retailer, in his position of buyer, is frequently favored with both sides of the question, he finds it, after all, extremely difficult to choose between them, and arrive at a satisfactory solution of the problem, and so the representatives of each class continue to obtain a proportion of the trade. In view of this it may be interesting as well as profitable to attempt to analyze the arguments of each, and, in order to do so with greater ease, it will be well to quote the arguments again in their order.

ARGUMENT No. 1.—*The Wholesale Grocer claims that, being on an equal footing with the Specialty House in the tea-purchasing markets of the Orient, he is able to import his teas at an equal laid-in cost, and is, therefore, at no disadvantage in this respect.*

This claim of the Wholesale Grocer would appear to be altogether a matter of circumstance. If he is in a position to

go to the Oriental tea-markets with as large an order as that of his business rival, he can command, at least, equal prices, for the commission men of Japan, and the exporters of China, India and Ceylon are no respecters of trade-classes. If, on the other hand, his order is for small quantities of varied kinds and grades of Japan teas, or for the choice, or for broken lots of Chinese chops, he can hardly expect to make good his claim, although much will depend upon the ability and general knowledge of his tea-department manager.

It is not a very difficult matter for a tea-buyer in this country to purchase suitable teas in the several Oriental markets. It is true that the conditions which exist in the different producing countries create different methods of doing business, but so many facilities for buying teas to advantage are offered by the European and American manufacturers of Japan; exporters of China, and grower-manufacturers of India and Ceylon, with whom the business is done, that few American importers, whether Wholesale Grocers or Specialty Houses, are wanting in knowledge or opportunity in this respect.

In Japan there are a number of European, American and Japanese firms whose sole business is to take care of their American clients. These firms are prepared to purchase native-leaf for the account of American importers, upon a commission basis, or otherwise, and are prepared, also, to manufacture the leaf into any desired make and style of commercial tea, and pack the finished product into chests, or packages, of any size or weight.

American orders placed with Japan houses are usually accompanied by standards, or samples, of the various makes and grades to be matched; and by limits of price per lb., or per picul— $133\frac{1}{3}$ lbs.—these limits being the maximum figures which the purchaser is willing to pay for each kind and grade in order to secure as close a match for his standards as the coming season will permit. Limits of price are

made in accordance with the knowledge the purchaser has of the conditions existing in Japan at the time that the order is placed, and are very necessary to the Japan house, but, inasmuch as orders for new crop teas are usually placed in Japan before the crop is ready to be picked, conditions may arise which will advance anticipated costs, in which case the purchaser is notified by cable so that he may have the opportunity of increasing his limits accordingly. The matter is then left entirely to the service of the Japan house; teas to match the purchaser's standards of quality to the best advantage are selected by it from the incoming volume of native-leaf, and at costs at, or as much below the limits as possible. The Japan house then manipulates the native-leaf and produces a tea exactly in accordance with the purchaser's instructions as regards make, style, finish, color, fire, etc.; packs the finished product into chests, boxes, or packages as required by the purchaser and forwards the goods by steamer, together with invoice showing prices paid for the native-leaf; the firing, boxing, matting, labeling, rattaning, export duty, marine insurance, purchasing commissions and other sundry charges added.

The majority of Japan exporting commission houses own and operate separate "go-downs" or tea-firing and -preparing establishments, and the product of each is usually so very characteristic that it is an easy matter for tea-men in this country to distinguish the make or "fire" of one "go-down" from that of another. American tea-importers are usually familiar with the characteristic make, fire and style of teas turned out by the several Japan houses; are capable of judging in the matters of quality, suitability and value; and are informed as to the general reputation which each house bears, so that it is a simple matter for them to place their business where, experience teaches, it will be taken care of in the matters of quality, uniformity and price.

Japan commission houses are mainly well established; have the reputation of understanding their business, and of being perfectly reliable in every way. It is to their very best interest to do everything in their power for their customer's benefit, for not only have they the business of succeeding years to take into consideration, but they are well aware of the fact that the importer will have every opportunity of matching up the teas shipped with those of other "firers," and be able to check them up in point of quality and cost, so that it is not unreasonable to expect that Wholesale Grocers and Specialty Houses fare equally well at their hands.

In the purchase of native-leaf, however, an element of chance occurs, and it is a chance which has to be taken equally by the Wholesale Grocer and the Specialty Jobber. This chance occurs at the time at which the Japan house makes the purchase of raw-leaf for the account of its American customer. By purchasing a few days earlier, or a few days later, from the incoming volume of tea-leaf owned by natives, a saving in cost, or the reverse, may occur, for it is not easy to catch the market at its bottom figure, or to obtain the lowest rate of monetary exchange; but the Japan buyers are expert, and are apt to do all possible in this, as in other respects, for their customers. For these reasons it is possible for one house to own its imported stock at a lower cost than another, but both Wholesale Grocer and Specialty Jobber have to, and do, take equal chances in this respect.

In China, teas are usually purchased in "chops," or in smaller lots, through European, or American exporting firms established at the treaty ports of that country. American importers of both classes have equal rights in Chinese markets; the exporters are actuated by a desire to please, so that future trade may come their way; competition among exporters established in China for the trade of the American importer is strong enough to prevent serious overcharges, and,

for these reasons, the buyer for the Wholesale Grocer has an equal chance to purchase at bed-rock figures with the buyer for the Specialty Jobber.

A small order for Japan tea cannot be purchased, fired, and prepared as cheaply as a large order, and a choice of, or a selection of lines from a chop of China teas, cannot be purchased at a price equal to that of the cost grading of the same teas were the entire chop taken, so that the size of the order, in either case, makes some difference in the matter of cost.

Wholesale Grocers, however, owing to the lesser variety of grades in use in their selling districts, are usually in a position to purchase heavily of a few *particular grades*, that is, of grades suitable to the requirements of their districts, and the size of such orders, as well as the lesser difficulty experienced by the Oriental house in filling them, is usually great enough to place Wholesale Grocers upon an equality in the purchasing markets with their trade rivals, whose orders, although larger in quantity, are much more varied and, consequently, more difficult to execute.

The Wholesale Grocer, therefore, having equal rights in the Oriental markets, and being in a position to purchase certain grades in quantities large enough to command equal prices, is, as he claims, upon an equal footing with the Specialty Jobber, and, for this reason, it cannot be truthfully claimed by either class that it has an advantage over the other in the tea-purchasing markets abroad.

ARGUMENT NO. 2.—*The Wholesale Grocer claims that he has a decided advantage over the Specialty house which ships to the retailer from a long distance, owing to the fact that the freight on teas by steamship and rail from Oriental shipping points is about equal to all ports of entry throughout the United States; therefore the retailer, who purchases teas from far-away home markets, has a heavy rate of local freight*

to pay, even if laid-down prices are made; against a trifling rate from his natural, that is, his home jobbing market.

This argument of the Wholesale Grocer is a strong one, but obtains only as against the Specialty Jobber whose shipping point is at a distance.

The freight rate on teas from Oriental ports, steamer and rail, to any port of entry within the United States, or Canada, is remarkably low, so low, indeed, that it is an expense which can hardly be taken into account *as against* the heavy long distance local first-class railroad freight rates ruling in this country. Instances have been known where the steamer and rail freight charges from the Orient to any port of entry within the United States have amounted to less than one cent per lb. gross, and where, also, the rate on through bill-of-lading was about equal at San Francisco, Tacoma, Missouri River points, Chicago, St. Louis, and New York. These low freight rates are caused by a heavy steamship competition for the carrying trade of teas to this country, and by an equal desire upon the part of transcontinental railways for the business, so it can be safely stated, that teas, under usual circumstances, lay down at New York, or at any interior jobbing point, at about the same cost of freight as they do on the Pacific Coast.

Sea-board cities on all coasts have a slight advantage over inland cities in the matter of freight rates when consignments of teas are shipped by tramp ocean-going steamers, or sailing vessels whose owners have no connection with the railway companies, for the rates of freight charged by such carriers are lower than those charged by the regular steamship lines. It is not often, however, that anything but the lowest grades of teas are entrusted to such uncertain arrivals, for the great desire of all importers to be in the market early with new teas overcomes the desire to make this slight saving in freight.

The claim of the Wholesale Grocer that his freight cost is equal to the freight cost of his competitor at a far-away point is substantiated by the facts in the case, and the claim that the retailer who purchases from a far-away home market has a heavy local rate of freight to pay against a trifling rate from his natural market is also substantiated by facts, for, although laid-down prices may be made by the far-away Specialty house, it is quite likely that the freight or, at least, a part of it has been added to the invoice cost of the goods. It cannot, however, be stated that the Wholesale Grocer does not take the benefit of this important advantage in his favor, for it would only be a legitimate business proposition to do so. The keen competition for the trade of the retailer, however, would appear to justify the conclusion that such is not always the case, but whether he takes the benefit of the advantage, or not, does not alter the fact that he has the advantage, and may use it for the benefit of his customer, or not, as he pleases. As already intimated, the Wholesale Grocer has no advantage in the matter of freight rates from the Orient over a Specialty Jobber located at, or near, the Wholesale Grocer's shipping point, for, in such a case, freight rates would be equal to the retailer's railway station.

It certainly appears strange that the facts relating to freight rates from Oriental points to America are not more generally understood, and it appears stranger yet that so many retailers insist upon purchasing teas from a distance, when, under ordinary circumstances, equal invoice prices and equal values could be obtained from Wholesale Grocers or Specialty Jobbers near at hand, *and the saving of heavy local freights made*. In this connection it may be said that it would be of great benefit to all concerned were comparisons of values to be made, for if the trade of a state can be held within the confines of that state, great mutual benefit would result.

ARGUMENT NO. 3.—*The Wholesale Grocer claims that, although he may not carry so extensive a stock, or so great a variety of grades, as some Specialty houses do, he, at least, carries a stock and variety of grades sufficiently large and extensive to supply the full needs of any or all of the retail houses tributary to the jobbing point at which he is located.*

This claim of the Wholesale Grocer is a simple statement of facts, and is used only as a proof that it is not necessary for him to carry a large variety of grades when such are unsuitable to his working territory. The trade of a community usually runs evenly enough to enable a Wholesale Grocer to make his purchases in sufficient variety to meet all of the requirements of any portion of his territory. The argument is used to offset the claim made by the Specialty Jobber that he carries a greater variety of grades for the retailer to choose from, and that his line is stronger than that of the Wholesale Grocer. Inasmuch, however, as the retailer can find as great a variety of the grades in use in his territory in the Wholesale Grocer's stock as he can in that of the Specialty Jobber, it would appear that the claim is well taken, for it would be absurd for the Wholesale Grocer to carry a stock of unsuitable or unsalable kinds and grades merely for the sake of strength that such a procedure would show.

ARGUMENT NO. 4.—*The Wholesale Grocer claims that selling expenses, that is, the salaries and traveling expenses of salesmen, are a part of the cost, and, as such, must be added to the laid-in cost of the goods he sells; and, that, inasmuch as his salesmen have a much greater variety of goods to offer and sell, their individual sales must, necessarily, be much greater in dollars and cents than the individual sales of the salesmen of the Specialty house; hence his percentage of selling cost to be added to the laid-in cost of teas is much less than*

that of the Specialty house, and he is, therefore, able to figure that much closer in making his selling prices.

This argument of the Wholesale Grocer is, presumably, the one mostly used by his salesmen, as, upon its face, it would appear to be the most effective one. The expenses incurred in selling goods, that is, the salaries and traveling expenses of salesmen, must necessarily—especially in a wholesale business—be added to the laid-in cost; in fact, selling expenses are as much a part and parcel of the cost as freight is. It is really immaterial to which ledger account a wholesaler charges selling expenses, for, whether charged to Expense account, Travelers' account, or any other account, they will ultimately appear upon the debit side of the separate merchandise account to which they belong, and the fact remains that these unavoidable expenses are a part of the cost.

The Wholesale Grocer's claim that his percentage of selling cost is much less than that of the Specialty Jobber is a reasonable one, and, in fact, is one that must be admitted, for having so many lines to sell, his sales must necessarily average a much heavier amount in dollars and cents than those of the Specialty house, and, for this reason, his selling cost is very materially less.

Such being the case it naturally follows that, *in the event of teas being of an originally equal laid-in cost*, the lesser selling cost to be added by the Wholesale Grocer to the laid-in cost, makes him the owner of his tea-stock at a less cost than that of the Specialty Jobber's, so that the claim of the Wholesale Grocer, in this respect, is entirely justified by facts. The question still remains, however, as to whether the original costs are equal, and, if so, whether the Wholesale Grocer is willing, or not, to give the benefit of the lower cost to the retailer.

ARGUMENT NO. 5—*The Wholesale Grocer claims to have*

an advantage over his business rival in the fact that he is near to, and, at all times, in close touch with his customer; that he has made, and is always making, or ready to make, an especial study of his customer's requirements; that he is in a better position to judge as to the kinds, grades, and qualities most suitable to the demands of the consumers within his business jurisdiction; and that he is able, and always ready and willing, to advise and assist the retailer in the selection of teas which will prove to be satisfactory.

This argument of the Wholesale Grocer is, beyond doubt, a feasible one, and, to the retailer, it means, perhaps, a great deal more than is usually believed.

Most Wholesale Grocers have the personal and financial welfare of their customers very much at heart; it stands to reason that they should; for, outside of purely personal motives, the retailer's success in his business means the wholesaler's success, and it is, therefore, reasonable to believe that a study of the existing relations are, at all times, made by the Wholesale Grocer. That he, owing to his close proximity to the retailer, and to the consumers of the retailer's district, is in a first class position to find out what kinds, grades, and qualities are most suitable to the water, and other existing conditions, is beyond question, and it is not reasonable to suppose that an up-to-date Wholesale Grocer will fail in such an important part of his business. That the advice and able assistance of a Wholesale Grocer can always be obtained is a foregone conclusion. It is to his own personal interest to do so, for he has the future trade of his customer to consider, and not on teas alone, but on the thousand and one other grocery articles which he carries, and it must, therefore, stand to reason that he will not be likely to jeopardize his standing with a customer by a failure to advise and assist in any way that will be to that customer's best interest.

On the other hand the Specialty Jobber is actuated in a similar manner. He, also, has future trade to consider, and it is certainly to his interest to take as great a care of his customer as he possibly can. Now comes the question as to which class of seller has the greater self-interest in the welfare of the retailer, and in the retailer's future trade? The Wholesale Grocer with his large line, or the Specialty-Jobber with his specialties? It is certainly not unreasonable to believe that the Wholesale Grocer's interest is the greater, and that his reasons for doing the best he can in the above respects for his customer are stronger than those of the Specialty Jobber.

ARGUMENT No. 6—*The Wholesale Grocer claims that it is never his intention to over-stock, or over-load, a customer with teas, as many Specialty houses attempt to do, for being in frequent and close touch with the retailer, and with the community in which the business is done, he is in a first class position to realize the financial conditions prevailing at all times, and does not wish to see a patron weighted down with an unnecessarily large stock under any conditions.*

This claim of the Wholesale Grocer, although frequently made, is, at least, open to question. The fact remains, however, that, were he to have his own way about the matter, and were the competition of Specialty Jobbers less keen, he would much prefer to sell teas in small quantities, and at more frequent intervals, for he fully realizes the danger of deterioration when large quantities are purchased by the retailer, with the consequent damage to his brand and to his reputation as a tea-house. To sell in quantity, however, appears to be the aim of both classes, and as long as one of them will push quantity sales, the other must. Lower prices are undoubtedly secured by the retailer in purchasing in larger quantities, but it is really a question if an advantage is to be gained

by heavy buying at lower costs, for there is deterioration, falling markets, interest, insurance and other charges to be figured against the lesser cost.

Both Wholesale Grocers and Specialty Jobbers fully realize this, but each is actuated by the fear that the other will fill a customer up with a stock sufficiently large to last for many months, and, in self protection, does his best to prevent such a possibility, and so quantity sales are pushed by both classes, although both would prefer, were it possible, to sell in smaller quantity and more frequently.

Financial reasons out of the question, it is to the retailer's best interests to purchase frequently and in small quantity, for teas will keep to a much better advantage in the well appointed store-rooms and warehouses of the wholesalers. The Wholesale Grocer fully realizes this, and the expression of his willingness never to over-stock a customer is influenced by the above reason as well as by financial reasons, and, were it not for the fear of his competitor, it is safe to assert that he would advocate smaller and more frequent tea-purchases.

ARGUMENT No. 7.—*The Wholesale Grocer claims that, although indirectly, it is certainly to the retailer's best interest to purchase teas from him, for the reason that to do so will keep the trade and its profits at home, instead of sending both to some far-away point; and this profit, being circulated at home, benefits the home community at large, the retailer included.*

This claim of the Wholesale Grocer is a sound one, and good as far as it goes, for, in the event of a dealer confining his purchases to his local market, the profits of the trade are, necessarily, kept in circulation at home and the retailer indirectly obtains the benefit.

It is certainly true that if trading were confined more

strictly to home markets, vast benefit would be derived by home communities, and a much greater general prosperity ensue. So long, however, as the retailer exercises his undoubted right to purchase away from home; and to send the profits resulting from the trade to build up some far-away community, just so long will he find it so difficult to succeed, and as soon as retailers learn to patronize home industry and home institutions, trade depressions will become less frequent; prosperity become more general, and a happier condition of men's affairs exist.

The arguments and claims put forth by the exclusive Tea Importer, or the Tea, Coffee and Spice House, are as well worthy of the retailers' consideration as those of the Wholesale Grocer, and a quotation of these arguments and claims, with a discussion of their merits will now be attempted.

ARGUMENT NO. 1—*The Specialty Tea Jobber claims that inasmuch as he goes to the Oriental purchasing markets with a much larger order than that of the Wholesale Grocer, he is in a position to command lower purchasing figures, and, in consequence, is able to quote lower prices, on equal grades, to the retailer.*

This claim of the Specialty Jobber is a very reasonable one, and is, in fact, one of the strongest put forth.

There are, in this country, a number of Specialty houses whose Oriental tea-orders are, undoubtedly, much heavier than those of the vast majority of Wholesale Grocers. Such houses import large quantities of all kinds and grades of teas, so that they may be able to accommodate buyers in the large stretch of country in which they do business; and, for this reason, it is only right to presume that they are in a position to command

the lowest possible purchasing prices, and own their teas at a less original cost than the average Wholesale Grocer owns his.

On the other hand it must be said in justice to the Wholesale Grocer that his order to the Orient, being confined to fewer grades, might, therefore, be as heavy as that of the Specialty Jobber *on any one of the grades which the Wholesale Grocer carries*, and, in such a case, there would not be much of an advantage in cost for one or the other. The Wholesale Grocer's order is usually for fewer grades than that of the Specialty Jobber, but upon these few grades his order is heavy enough to enable the Oriental exporter, or manufacturer, to purchase for him at the bottom market prices, and, where this is the case, the Specialty Jobber has no advantage. The fact that many large Specialty Jobbers carry a much heavier stock than most Wholesale Grocers, does not, necessarily, prove that their imports of *particular* grades are heavier. The Specialty Jobber covers a much larger territory than the Wholesale Grocer, and his imports must, in consequence, be heavier in order to accommodate the varied demands of a varied trade, but the fact that his total imports are greater does not prove that he imports a greater quantity of the same *particular grades* imported by the Wholesale Grocer, hence there is every reason to believe that the Specialty Jobber has no real advantage over the Wholesale Grocer in the matter of Eastern costs.

ARGUMENT NO. 2—*The Specialty Jobber claims that he is "first hands," that is, that he buys his teas directly in the Oriental markets, and sells them directly to the retailer, so that, by purchasing from him, the retailer saves the "middle man's" profit, that is, the profit of the Wholesale Grocer.*

This claim of the Specialty Jobber is good as far as it goes. It is perfectly true that he is "first hands," but is not the Wholesale Grocer equal with him in this respect? Whole-

sale Grocers import the greater portion of their tea-stocks directly from the Orient, and sell directly to the retailer, hence they are "first hands" equally with the Specialty Jobber. There are indeed many lines of goods carried by a Wholesale Grocer which he sells as a "middle man;" for instance, the goods of manufacturers who do not sell to retailers, and, for this reason, he is usually looked upon as a "middle man," but in the matter of teas it would be very unfair to class him as such. It frequently happens that a Wholesale Grocer will run out of stock of some grade, or grades, of tea during a season, and be compelled to replenish his stock in this country by purchase, but this fact cannot rightfully be made to prove that he is simply a "middle man," if so, the Specialty Jobber can just as rightfully be called a "middle man," for he is just as frequently called upon to replenish his stock by purchase in this country as the Wholesale Grocer.

ARGUMENT NO. 3—*The Specialty Jobber claims that his stock is larger, and is composed of a greater variety of grades than that of the Wholesale Grocer, and, in consequence, he is able to show a stronger line for the retailer to select from, and to supply all of his demands to a much better advantage.*

This claim of the Specialty Jobber is one of the strongest put forth by his representatives. As a rule he has the larger variety to offer to the retailer, and this fact may in some degree, and most probably does, influence the retailer's judgment in the matter of buying, but it by no means follows that because of a larger stock and greater variety, lower prices, or better values, can be offered. On the other hand, it is hardly unreasonable to suppose that this larger stock and greater variety adds to the cost of the stock-in-trade of the Specialty house, by reason of increased expense in the matters of interest on capital invested, insurance, taxes, warehouse charges, etc. It fre-

quently happens, however, that a retailer can choose his stock of teas to better advantage from the greater variety of grades offered to him by a Specialty house and, for this reason, and in such a case, the position of the Specialty Jobber in his claim is unassailable.

ARGUMENT NO. 4—*The Specialty Jobber claims that he makes a greater specialty of teas than the Wholesale Grocer; that his knowledge of the trade is greater; and that his stock is selected to better advantage. For these reasons he claims to be in a superior position, and can go before the retailer with a greater knowledge of his requirements, and fill his orders with goods that are better calculated to please in point of quality, suitability, uniformity, and price.*

This claim of the Specialty Jobber is particularly strong, and is the one that appeals the most forcibly to the dealer, and especially, to those dealers who think more of giving general and continued satisfaction to consumers than they do of obtaining greater profit; and such a claim, when used by the able representative of the Specialty house, does more to win and to hold trade for him than all of the other claims combined. To it, and to its faithful accomplishment in every particular, the continued success and rapid growth of Specialty houses is directly attributable, for there are few such houses that do not fully realize the great importance of living up to the letter of such a claim, and doing everything possible to make it good.

This claim, however, while made in perfect faith, is, as far as the retailer's interest goes, open to question, and, for the reasons that follow, it will be seen that, as a matter of guidance to the retailer in purchasing teas, it is altogether a matter of circumstance.

It is true that the Specialty Jobber makes a greater specialty of teas, and is, otherwise, in a better position to do all

that he claims than many Wholesale Grocers, for, inasmuch as he devotes his entire energies to the one, or to limited lines, his efforts, and greater knowledge of the business, give him a much better chance of success in satisfying a retailer than those Wholesale Grocers can expect to have who make but a secondary consideration of teas, or allow their tea-business to run as it will.

There are, however, a large number of Wholesale Grocers who make just as great a specialty of teas as any Specialty house; whose knowledge, purchasing capacity, and position as a tea-house is, at least, equal, and who are just as capable, in every way, of giving satisfaction to the retailer in point of quality, suitability, uniformity and price, for, notwithstanding the fact that such Wholesale Grocers handle so many other lines, it stands to reason that, if they pay as much attention to the tea-business as Specialty houses do, they can command and give equal conveniences in every respect. Wholesale Grocers of this class are up-to-date in the tea-business, for each has its especially appointed and separate tea-department, originally organized for the furtherance and better equipment of this particular branch of the business, and placed under the guiding hand of an expert and experienced tea-man. Such a department places the Wholesale Grocer upon a par, in every way, with the Specialty house that solicits retail trade, and gives him equal facilities to handle the retailer's business in a satisfactory manner, for it cannot be said that the tea-man of the Specialty house is the superior of the tea-man of the Wholesale Grocer or *vice versa*.

It will be seen from the above that the Wholesale Grocer, who cares to do so, can place himself in a position of equality with any Specialty Jobber, and that the Specialty Jobber's claim to superiority in the foregoing respect is, as has been stated, a matter of circumstance alone.

Specialty houses have an undoubted advantage over those

Wholesale Grocers who have no special tea-department, or who employ no experienced tea-men, for it rarely happens that a general buyer—a buyer who purchases everything—is as well posted in the tea-business as a man who has served a life time at the trade, but the fact still remains that there are a large number of Wholesale Grocers in this country who have placed themselves in a position of equality with Specialty houses in every respect, and that the claim of the Specialty Jobber is good only as against such Wholesale Grocers who make no attempt to bring their tea-department up-to-date in every particular.

ARGUMENT No. 5—*The Specialty Jobber claims that his salesmen are, upon the average, better educated in the line; are much better posted upon the subject of teas generally than the salesmen of the Wholesale Grocer; and are, therefore, in a position to talk more intelligently upon the subject with the retailer; are more able to match up teas or samples, and supply him with grades more suitable to his requirements.*

In this claim of the Specialty Jobber we have a strong one again, and one that naturally carries considerable weight when presented to a retailer.

Specialty tea-houses, whenever possible, employ salesmen who have had some experience in the tea-business, and, when such men are not obtainable, an education, great enough to enable the inexperienced man to talk teas intelligently, is usually given before permitting him to take the road, for it is of recognized importance that a tea-salesman should be sufficiently well posted in the line to be able to guide those retailers who are unequal to the task of selecting suitable teas for themselves.

The fact that a Specialty tea-salesman is in the exclusive tea-business gives him certain natural advantages over the general Grocery salesman, which advantages he is by no means

slow to improve, but it cannot be claimed, with any degree of justice, that such advantages are the results of a higher tea-education, or that they, necessarily, enable the men possessing them to become, without study or experience, better posted in teas generally than the average grocery salesman. As a general rule the specialty tea-salesman *has the reputation* of being thoroughly conversant with his business, *whether he is so or not*, and of understanding it better than the average grocery salesman, for, owing to the single fact that he is what he is—a specialty salesman—retailers, almost generally, give him the credit of possessing superior ability as a tea-man; and this natural advantage, when aided by a great zeal in pushing goods; by a greater amount of time in which to do so; and by the application of such well-studied stock arguments as he possesses, carries with it the impression of a still greater knowledge, and gains for him a consideration at the hands of the retailer which he would be extremely foolish not to apply.

Such reputations, however, are easily obtained, and, owing to the lack of knowledge exhibited by the average retailer upon the subject of teas, are easily held, but it by no means follows that reputations of such a kind are gained by visible evidences of a real tea-knowledge or education.

In spite of the fact that there are a great number of his salesmen whose reputations for knowledge rest solely upon the positions they occupy, the claim of the Specialty Jobber is entitled to credence in a certain degree, for there are, indeed, many tea-specialty salesmen who are tea-men in every sense of the word; men whose long experience upon the road and at the tea-table, has given them a reputation which they richly deserve, but such men are in the minority, and are likely so to remain, for the simple reason that few men possess the natural qualifications necessary to become really expert in teas, and that those who are fortunate enough to possess

such qualifications are usually able to find an employment superior to that of traveling.

A specialty tea-salesman has greater opportunities to become more quickly educated in the business than the general line salesman, for having nothing with which to occupy his mind in a business way, other than the limited line of goods he carries, he has more leisure in which to study, if he cares to apply himself. There is no question but that many avail themselves of the opportunities presented for gaining knowledge, and so train themselves in trade terms, in qualities, in values, etc., and, by this means, strive to uphold the general reputation which their positions give to them. The impetus to become more proficient in the line, however, cannot be said to be greater in the case of the specialty salesman than that which impels the grocery salesman to study teas, in fact it is really a question if it is as great, for many specialty men are prone to depend upon the reputation already gained, especially when they find that a slight knowledge added to their reputation is all that is necessary for them to possess in order to succeed in selling teas enough to make their services profitable. On the other hand the grocery salesman is not backward, as a rule, in a study of teas. The fact that teas are difficult to sell, and are much more acceptable as sales to the employing house than many other staples, creates within him a lasting desire to excel, and, in consequence, he is usually willing to exert himself in an effort to become more and more proficient, and, in doing so, he generally succeeds in obtaining a knowledge great enough for all practical purposes. In his effort to improve his knowledge of teas he is aided by the tea-department man, who, as a rule, is not only capable of imparting sufficient knowledge, but applies himself earnestly in the effort to do so, and, as a result, it usually happens that the salesman, who has been a few years upon the road for an up-to-date Wholesale Grocer, acquires a knowledge of teas equal

to that of the majority of specialty salesmen, and great enough to guide him in making sales that will prove to be entirely satisfactory to the most exacting retailer.

The claim of the Specialty Jobber *as a whole* that his salesmen are better educated in the line, and much better posted upon the subject of teas generally than the salesmen of the Wholesale Grocer therefore, is open to serious question, for it is, indeed, more fancied than real, and is a just one only in the case of those of his salesmen who have been educated in the store, and have had a sufficient experience in testing, and in matching, at the tea-table; proficiency at which being the only real test of a tea-man's ability. In the case of salesmen who have gained their knowledge by word of mouth, and their experience upon the road, no advantage of consequence, one way or the other, as far as actual tea-knowledge is concerned, is visible, for, in both cases, the salesmen of each class have acquired their knowledge in the same school, and have had equal facilities, as well as possessing equal faculties, for absorption.

The only actual advantages, therefore, which the average specialty tea-salesman appears to have, are to be found in the reputation as a tea-man which he is fortunate enough to acquire as the result of his position, and in the abundance of time at his disposal for the acquisition of real tea-knowledge, if he chooses to apply himself. Notwithstanding these advantages, however, and in spite of all that may be said, or believed to the contrary, it is difficult to perceive wherein the average tea-specialty salesman is, or has the power to become, the superior of the average grocery salesman in actual tea-knowledge, and, for the same reason, it is equally as difficult to believe that one is in a better position to supply the retailer with more suitable goods than the other.

ARGUMENT NO. 6.—*The Specialty Jobber claims that the*

Wholesale Grocer is compelled to get a large profit on his line of teas in order to "average up" the small margin of profit which he makes on staple groceries; while he, on the other hand, having nothing but teas, or teas, coffees and spices to sell, is not placed in such a position, and having no small profit goods to "average up" upon, he can the better afford to sell teas at a smaller margin of profit.

In this claim of the Specialty Jobber we have one that is not easy to verify, or to refute. It certainly is a difficult matter to determine whether, or not, the Wholesale Grocer expects, or attempts, to make a larger percentage of profit on his tea sales than is proper and just in order to "average up" on the small margins of profit made on so many lines of staple groceries. The Wholesale Grocer, however, has the same end in view as the Specialty house, that is to make as good a profit showing at the end of the year as possible, and, in order to show this profit, sales must be made, *and must be kept up*, so that, even were the temptation offered to charge unreasonably high prices on teas, it would be extremely inadvisable, as a business proposition, to do so, *for it is not at all likely that such a proceeding could be kept up*; a fact which every reasoning Wholesale Grocer appreciates.

Every tea-wholesaler expects a fairly good margin of profit on teas, and the fact that there are so many exclusive tea, and tea, coffee and spice houses, in business is the best proof that such goods are more profitable than other grocery lines. It is right that there should be a good profit in teas as far as the Wholesale Grocer is concerned, for without them, and a few other fancy goods, wholesale dealers in groceries would find it difficult to exist, a fact which retailers must appreciate for they are placed in exactly the same position themselves. Therefore, if the profit on his tea sales helps the Wholesale Grocer to "average up" on the small margins of

profit made on staples, there is no one better entitled to it than he, and certainly not those who refuse to handle staples because of the small profits shown. To contend, however, that the profit made by the Wholesale Grocer on teas is excessive, or greater than it should be on this account, is hardly reasonable, for it would appear to be extremely unlikely that such an attempt would be made by any responsible Wholesale Grocer in view of the fact that he has competition to meet, and that he has as great an interest in proving himself to be as reasonable in his prices as his exclusive competitor.

A recapitulation of the above arguments, or a further analysis of their individual merits, would appear to be unnecessary, for it will be seen that the advantage of general position is decidedly with the Wholesale Grocer. In all probability some of the larger Specialty houses purchase their teas to better advantage in the matters of laid-in cost and variety, but the evident advantage which the Wholesale Grocer has in much lower selling expenses to be added to laid-in costs will, at least, equalize the original advantages in favor of the Specialty house.

Admitting then, as we are forced to do, that the starting points of both classes, as far as original costs are concerned, are equal, it necessarily follows that the Wholesale Grocer's position as a wholesale dealer in teas, notwithstanding pre-conceived opinions, is as strong, to begin with, as that of the Specialty Jobber. His subsequent position to figure as closely as the exclusive house, and his ability to give goods that are as satisfactory in point of quality and value, no one can reasonably question, for trade rivalry, if nothing else, compels him to exert himself fully in these respects. The fact, then, that local first-class freight rates are, in most cases, strongly in his favor gives him an advantage which the retailer cannot afford

to overlook, and, this advantage, added to his unequalled facilities for prompt attention; his greater reasons for care in the handling of trade; his stronger financial grounds for prudence in the matter of overcrowding sales, and his general interest in the welfare of his trade and in the community surrounding it should, at least, count materially in his favor, for these are considerations which the Specialty Jobber will find difficult to overcome. Therefore, in viewing the situation from the standpoint of cost; of business advantage and of business policy, we can hardly fail to come to the conclusion that the retailer will consult his own best interests by purchasing his tea supplies from the house that sells him sugar—his Wholesale Grocer.



Photo From Life.

NATIVES STEAMING TEA LEAVES IN JAPAN.

See page 125.

CHAPTER VII.

IS IT WISE TO PLACE AN IMPORTATION ORDER?

It goes without saying that competition for the order of the retail merchant is as great in the Wholesale Tea trade as it is in any other commercial line. This competition naturally stimulates the inventive faculties of the wholesaler to a great activity and, as a result, many ingenious ideas, some entirely new, others old, but clothed in new garments, are constantly being presented to the retailer as a means whereby his order may be secured and his future trade controlled.

Possibly the most important of the trade-winning ideas which have, of late years, been brought to light, adopted and prosecuted by the Wholesale Tea trade almost generally, is that which is known as the "Import" or "Contract Order System;" and, although it is now quite a few years since the idea was originated, it not only continues to hold its own as a favorite means whereby trade may be secured and held, but it appears to become a more and more important part of the Wholesaler's business, and is, in fact, likely to gain ground and be pushed with renewed activity each year.

The very fact that the Importation Order business is pushed with so much zeal by the Wholesaler, goes to prove that it is a trade-winning and, therefore, a profitable idea, and, for this reason, it will be wise as well as profitable to examine the pros and cons of the question propounded at the head of this chapter, viz.: "*Is it wise to place an Importation order?*"

In order to arrive at a satisfactory solution, and to probe the subject to its bottom, it becomes necessary to examine it from the standpoints of both Wholesaler and Retailer.

It is generally understood that, when accepting a tea-importation order from the retail merchant, the Wholesaler undertakes to purchase in the Oriental markets, on behalf of, and for the account of the retailer, a given quantity of one, or of several kinds or grades of tea, at a stated, or at a limited price for each grade, delivered at some designated distributing point in the United States. Each chest of tea so imported is to bear upon its label, or facing, the name and address of the retailer, together with his chosen brand or brands. When small packages, boxes or tins are to be imported, each package, box or tin is to bear a chosen brand together with the retailer's name as the importer of the tea covered by the label of the package, box or tin.

In taking this class of order the Wholesaler usually exhibits samples of the growth of the preceding season, which are accepted as standards of the coming season's growth, and it is understood and agreed that the samples, or standards, chosen by the retailer are to be matched in style, color and cup qualities as closely as the conditions of the coming season will permit. The goods are to be shipped to the retailer upon arrival at the port of entry, or at given dates and in given quantities, throughout the year in accordance with the terms of the contract; which contract, embodying the details of the transaction, is usually made in duplicate, signed by both seller and purchaser, each party to the transaction retaining a copy.

As already intimated, the motive which originally suggested the Import Order System was the anxiety of the Wholesaler to secure the entire, or, at least, as great a portion as possible of the yearly business of the retailer, and steal a march, so to speak, upon competition.

The traveling representative of the Wholesaler is instructed to find out, as nearly as possible, how many packages of tea the retailer uses during the year, and, as it is usually presumed that the trade of each retailer increases yearly, his

instructions are to judiciously arrive at the percentage of this increase, and solicit an import order for the yearly business, prospective increase included. With such an order on file, the trade of the retailer is secured for the year. Competition cannot affect it, for, inasmuch as the order, or contract, is signed, the buyer is legally, as well as morally, bound to accept the teas at contract prices.

The aggressive Wholesaler usually attempts to open the Import order campaign very early in each year, although a fair amount of missionary work is done by salesmen at all seasons. During the months of January, February, March and April the work of securing Import orders is vigorously prosecuted, for every Wholesaler knows from experience that he must work hard for his share of this kind of business, otherwise his Summer and Autumn deliveries are likely to fall very short of what they should be; and for this reason, if for no other, many Wholesalers are forced, frequently against their better judgment, to adopt the system.

The position taken by the Wholesaler in placing before the retailer the advantages to be derived from placing an import order, is naturally made a strong one, and it is a most difficult matter for the retailer, who possesses a limited knowledge of the subject, to view the matter from any other standpoint than that which is presented to him. It may, therefore, be useful to carefully examine the position of the retailer in connection with the arguments put forth by the Wholesaler, and, in so doing, attempt to arrive at a satisfactory solution of the question. In order to do this it will be necessary to take the arguments which are advanced in support of the system, and examine each one from the standpoint of the retailer.

FIRST.—*The retailer is impressed with the idea that the labels, or facings, of the chests will bear his brand and name, and each label will specify that he is the direct importer of the*

teas contained within each package, or that the goods have been especially imported for him.

Such an argument is, of course, a strong one in the case of the retailer placing his order for teas packed in small packages, such as quarter-pound, half-pound or pound paper packages or tins, or in five-pound or ten-pound boxes or tins, for, in such a case, his brand is circulated in the homes of the residents of the town and district in which he does business, and he, therefore, becomes known as the importer of that particular brand, and of the package which bears his name. There can be no doubt whatever about the value of such an advertisement, provided, of course, that the tea enclosed in the boxes, packages of tins is of a quality sufficiently good to create and hold a steady demand for it.

On the other hand it is most difficult to discern wherein a retailer can derive an advantage, or an advertisement, from the fact that his brands and name are printed upon the facings of a chest of *bulk* tea. The majority of retailers have, as a store fixture, a canister, or box, especially made for convenience in retailing teas, and into this canister a portion of the contents of a chest is placed, while the chest, containing the remainder of the tea, is stored away under the counter, or in some more convenient out-of-the-way place, to be, in due season, brought to light for the purpose of re-filling the tea-canister; after which the empty chest with its attached label is relegated to the wood pile or to the stove. How can it be possible, in such a case, or under such conditions, that the facing, or brand, upon the chest has done good to the retailer? And how can it be possible for any one to contend that such an advertisement is of value, or worthy of a moment's consideration?

There are, on the other hand, some retailers who recognize that, under the above conditions, not much advertising value

is to be obtained from private brands placed upon chests of bulk tea, but, in order to make the most of it, will endeavor to create an impression upon the public by exposing a number of chests of their branded tea in show windows; while others, for the same reason, will stack up a number of the chests in some conveniently prominent part of their store.

The first of these methods cannot be too severely condemned for the reason that the contents of the chests, while in the window, are in great danger of serious damage, if not of entire ruin, for the action of the sun's heat, made stronger by the concentrating action of the window-glass, will not only draw out the strength and sweetness of the tea-leaves, but will damage their flavor and aroma also. Nor is this the only injury which is likely to occur. The labels, those beautifully designed, highly-colored works of art for which the Chinese and, particularly, the Japanese are commercially famous, are more than likely to suffer, for the exposure to light and heat will destroy the colors and leave the label a damaged looking object, its colors faded and drawn and presenting an ugly, washed-out appearance which will totally destroy any chance it may have had of being a good advertisement.

The latter of these methods, that of stacking up the chests in a convenient part of the store, is much the safer plan, provided, always, that the part of the store selected for the exhibition is cool, of an even temperature, and free from excessive daylight, or the direct rays of the sun.

From the above it will be seen that the advantages to be derived from private labels, or brands, are much more imaginary than real, except, as already stated, in the case of teas packed in small packages which go intact into the homes of consumers; nevertheless the wholesaler places a great amount of weight upon the idea of printing labels in the name of the retailer, and has made of it a victorious argument in favor of the system, for he realizes that the idea touches the retailer

in a tender spot, by appealing to his sense of vanity, and this is, in many cases, liable to over-rule better judgment. It is gratifying to see his name and brand handsomely engraved in colors upon packages of goods which have been grown, manufactured and packed in a distant and distinctly foreign country. It is gratifying, also, to be known as a direct importer from China and Japan, as the labels state, but can it be truthfully said that such an advertisement, or gratification, has repaid its cost, or compensated the retailer for the risk involved?

SECOND.—*The retailer is impressed with the idea that, by having his teas packed under his own private brand and label, he will be placed in a position to prohibit the possibility of his competitor in business underselling him.*

Here we have an argument which, upon its face, is very plausible, but it is, in fact, one which will not bear investigation.

In districts where small package teas are sold, that is, teas packed in retailing quantities, and branded so as to be recognisable by consumers, this argument carries great weight, and justly so, but in districts where bulk teas are mainly used, such a possibility is extremely improbable. The cutting of prices is mostly indulged in on package goods, or on goods of any kind which may be identified, and could easily happen where two or more retailers are handling the same brand of package teas, but, in the case of *bulk* teas, where so many grades, blends or mixtures are in use, it is not at all likely that one retailer would, or could, claim that he is selling the same tea that his competitor sells at so much per pound less.

THIRD.—*The retailer is impressed with the statement that he will receive teas for his trade which will be uniform in quality throughout the year.*

Here we have another strong argument in favor of the system of placing import orders, and one which is perfectly true as far as the statement goes, but it is an argument which will hardly influence the thinking merchant.

It is a well known fact that every wholesale dealer in teas places a yearly importation order for a sufficiency of the various kinds and grades of teas to supply his trade from one season to the next. These teas are packed under brands, or under brands and numbers, which designate the grades, and, in placing the yearly order, the wholesaler is more than careful to protect his chosen brands, and to match his regular standards of grade from year to year as closely as each succeeding season will permit. Does it not, therefore, stand to very good reason that any retailer can obtain, from the same wholesaler who is so anxious to secure his import order, the same uniform grade of tea all the year round, and purchase the goods in quantities to suit his requirements from time to time throughout the year? Would the retailer, when such is the case, be benefited by, or justified in contracting for, and receiving, a year's supply of tea, when he can purchase an uniform grade from month to month and from the same source?

FOURTH.—*The retailer is impressed with the idea that once his order for a year's supply of tea is booked, there will be no further use for the representative of the selling house to visit him until the next year, and that the expense of periodical, or frequent, visits during the year will thereby be avoided and the goods can, therefore, be sold at correspondingly lower rates.*

This is not a usual argument, but it is sometimes used with effect. It is one which obtains only in the case of the exclusive tea wholesaler.

In the case of towns having but one store this argument

carries some weight, but, where there are two or more retailers in the town, it loses its value, for the reason that the traveling man will continue to make his periodical visits in order to sell his goods to the merchants of the town who have not placed an import order.

FIFTH.—*The retailer is impressed with the statement that, in the event of the conclusion of an import order contract sufficiently large to cover the year's requirements, a lower price per pound will be made on all grades in consideration of the size of the order.*

This is, by far, the strongest argument which is advanced by the wholesaler, and it is one which, naturally, carries a considerable force with it. It carries weight because it is not only reasonable but is in the nature of a business-like proposition. It is very true that a wholesaler is placed in a position to make lower rates when an order in quantity is given, and the reasons which he advances for being able to do so are beyond question. He saves much expense in the matter of insurance, taxes, interest, drayage and in other minor items, which, in the course of a year, amount to a considerable sum in the aggregate, and there is no good reason why his customer should not, at least, participate in the saving.

As has already been stated this argument is the strongest in use in the furtherance of the importation order system, and it is, therefore, the one which every retailer should examine carefully from his own standpoint. That there is a saving to the wholesaler in the items mentioned is true; that the wholesaler will invoice the teas at from 5 per cent. to 15 per cent. below the ordinary selling price is also true, but, even at this, or at a lower cost yet, does the retailer really make the saving? True his goods will be invoiced to him at a price showing the saving, and he will undoubtedly own

the goods at invoice date at the reduced price, but, in the very act of having purchased so heavily to make the saving, has he not placed himself in exactly the same position as the wholesaler would be in were he to carry the goods? Has he not placed the burden of expense upon his own shoulders? Will he not, with the large stock on hand, have to bear the expense of additional insurance, taxes, interest, etc., which the wholesaler has escaped by the transaction? And should not these additional expenses be added to the original cost of the goods? It certainly would appear to be good merchandising to figure it in this way.

These are, at least, considerations well worthy of the careful thought of the retailer; and while it may be urged that the expenses of carrying additional stock in a small city are not so heavy, proportionately, as in a larger city, and in the aggregate may not amount to the sum of a 5 per cent. to 15 per cent. saving on invoice value, still the danger of fire, in case of under-insurance, or of damage or deterioration, should be taken into consideration in this connection.

Having investigated the five strongest arguments which are used by the wholesale trade to foster the importation order system, and having examined them from the standpoints of both wholesaler and retailer, it will now be additionally advantageous to analyze the question from the standpoint of a sound business policy.

FIRST.—When a retailer places an import order, he, in most cases, makes the order sufficiently large to cover his requirements for a year. In doing this, he is taking several unnecessary chances of loss, and it is absurd to urge that the benefits accruing will more than counter-balance the risks involved.

To begin with he is very likely to order more goods than he can sell during the year, and it is useless to argue that this is unlikely, for the thinking merchant will have in mind at

the time of entering into the contract, that one of the main arguments in favor of the system is that one which suggests that his teas will be of one uniform grade throughout the year. Again it is price that he is after, and the greater the quantity the lesser the price is likely to be. Now, with these thoughts in mind, the retailer is more than likely to over- rather than under-buy, for he will naturally be looking for the lowest price as well as be in fear of running out of stock before the arrival of the succeeding year's goods.

In such an event the retailer has placed himself in a poor position indeed, for when the end of the season arrives and new-crop teas are in the market, he finds himself compelled to dispose of his surplus stock of old crop goods, while his competitors are putting out new goods which, with their freshness and superior flavor, are likely to win trade away from him. Then comes the usual result of such a condition of affairs; the old teas cannot be put on one side, for they are not gaining in value with age, so they must be pushed off. Reduced selling prices are placed upon them, and the saving in original cost is again cut into.

SECOND.—A contract for a year's supply of tea at a given price places the retailer in such a position that he cannot take advantage of any "snap" which might be offered to him, or of any natural reduction in the market prices of teas. It might be urged, in opposition to this, that teas might advance in price during the season instead of declining. True, but the probabilities are very much more in favor of a decline, if anything, especially towards the end of the season, for the reason that the wholesalers are likely to crowd sales at that particular time, so as to have as clean a stock as possible at the beginning of the succeeding season, and the effect of this general effort to clean up stock on the part of the wholesalers is usually, and quite naturally, a reduction in price. No wholesaler desires to be "caught long" on old crop teas at the beginning of a new

tea-season, for old crop goods, in competition with new, are, irrespective of laid-in cost, much inferior in intrinsic value, so that a large stock of "carried over" goods means a considerable loss in dollars and cents as well as in prestige to the wholesaler; hence considerably lower prices in the effort to clean up. The retailer who has placed an importation order will find himself in exactly the same position if "caught long" at the end of the season, and he will, as already stated, find himself in no position to take up any advantageous offer which might come along.

THIRD.—The retailer who places an importation order for a year's stock at contract price, does so without a personal knowledge of facts and figures to guide him in the matter of values. He knows, of course, the cost of the various grades he has been using, but he is in no position to estimate the values which conditions will place upon similar grades for the coming season, therefore, if he places such an order, he must, perforce, rely upon the integrity of the seller. Granted that there are few wholesalers, in these days of strong competition, who would attempt to take advantage of a retailer's want of knowledge, still, under such circumstances, it would appear to be a safer business policy to await the arrival of new goods before purchasing, and not to take chances upon the grade, or value, of an article which is still unproduced by nature, or is upon the bushes in the gardens of Japan, China, and India at the time of entering into the contract. How is it possible for a retailer to measure the Oriental market? Is he in a position to obtain accurate personal information as to the conditions existing, or ruling, in the tea-producing countries? Can he foresee the chances of a large crop with its attendant lower prices, or of a short crop with its higher prices, or can he measure the effect which favorable rains, or unfavorable droughts will have upon the forthcoming crops? What retailer is in a position to judge as to the effect upon prices which the matter of mone-

tary exchange, the value of silver, will have upon the value of teas? The wholesaler himself, while in a much better position to obtain information through his cable relations with Oriental commission men, or through his buyer upon the ground, still finds himself in no position to gauge the situation accurately. A rain at a timely moment might save a crop of tea, and make a full crop where a short crop was anticipated and so create a slump in values; or a lack of expected seasonable rains at critical periods might have the reverse effect. The shadow of a war, or of a political upheaval, might cloud the horizon at a crucial moment and cause an advance in the value of silver and a consequent inflation of values, to be followed by a sharp decline when the cloud was brushed away.

FOURTH.—No thinking retailer would dare to purchase futures of canned goods, for instance, in such a blind fashion as very many purchase futures of teas. The purchase of futures he knows is decidedly risky and, in order to protect himself, he studies the existing and likely future conditions thoughtfully; goes over the ground carefully, and, eventually, is as thoroughly posted as the wholesaler himself. In these matters he feels justified in buying for future delivery and, in a great measure, he is, but in purchasing future teas it is difficult to find justification, for it is ordinarily done blindly, and in a way that, with any other line of goods, no merchant would be guilty of.

In view of the foregoing it will be seen that the placing of an importation order for teas is a matter of blind speculation, and it must be admitted that a careful study of the subject will prove that there are more chances of loss to the retailer than there are of gain. The chances of loss by fire, damage, deterioration, lower values, over-stocking, extra expense, loss of trade, tied-up money, etc., are certainly greater than the value of the advertisement of a private label, or brand, which, upon the whole, is the only *real* advantage which the

retailer can obtain under the system, so that it only remains for the retailer to determine whether the advantage of a private label as an advertisement is of sufficient value to him to offset the unfavorable risks which he takes when purchasing a year's supply of tea under this system.

To those retailers whose trade is largely in package goods, such as half-pound and one-pound packages or tins, or five-pound and ten-pound boxes, the advertisement of a private label and private brand *is* of sufficient value to offset the risks involved, and in the event of such a retailer choosing and registering his own brand, or brands, to the exclusion of the wholesaler's brand, or brands, the system is decidedly, and even greatly, in his favor.

On the other hand the retailer whose trade is in bulk teas, if he will give the subject as careful a study as he gives to the purchase of other future goods, cannot help but answer the question at the head of this chapter in the negative. He must so conclude if he consults his own personal interest, for it is much to his advantage to allow those who are in a better position than he to take the risks of importing, rather than to take those risks himself.

CHAPTER VIII.

BULK VERSUS PACKAGE TEAS.

At some time during his business career every retail dealer in teas has been, or will be, called upon to consider and to pass judgment upon the small tea-package problem.

Unfortunately the steady growth of the package trade tends to prove that this problem has not received that serious thought and consideration at the hands of the retailer which it undoubtedly deserves, otherwise package teas would not have met with the success which has attended their introduction.

It is now some twenty odd years ago that the idea was conceived, and today the country, and particularly the Western part of it, is flooded with teas of all kinds, grades and blends packed in quarter, third, half and one-pound paper packages, cardboard cartons, lead-foil packages, and tins. These small packages are faced with beautifully executed trade-designs, or trade-marks, which are registered and thoroughly protected under the law, and, in addition to these trade-marks, the importer's, or the packer's, name and address is engraved upon each package in conspicuous lettering.

The origin of the idea, like that of the Importation order system, is to be found in the desire of the wholesaler to gain, and to control, the tea-trade of the retailer by getting him to introduce to the consumer a package of tea *which can easily be identified and called for by its brand*. The retailer is frequently assisted in this laudable design by the importer, or owner of the brand, who is usually willing to pay, or allow, for judiciously distributed samples, and for newspaper and other advertising.

It is only to be expected that teas packed in identifiable



Photo From Life.

EXPRESSING THE SAP IN JAPAN.

packages will be found to be of good value, good style and good drinking quality, for inasmuch as the fundamental idea is to establish a consumer's demand for a particular brand, it naturally follows that the owner of the brand will take the very best of care to have the goods of such a quality at all times as will cause the consumer to call for the brand continuously, and, this end attained, the wholesaler not only has a strong hold upon the retailer's tea-trade, but has a very valuable asset in the established brand itself.

Much can be said in favor of the system, but the retailer, who has his future trade and profits in view, and cares to give the subject that consideration which it should have, cannot but conclude that it is decidedly to his interest to avoid the package teas of others, and handle either his own brand of package teas, or carry bulk teas exclusively.

It is said in favor of the system that it prevents the loss of giving down, or over, weight. This, it must be admitted, is true, but it must, also, be admitted that the extra cost of packing in small packages will, to some extent, counterbalance any loss occasioned in this way, for it is difficult to believe, in these days of perfected scales, that the loss by giving over weight is great enough to warrant the expense and the danger of handling and establishing the registered brand of another.

It is also said in favor of the system, that it prevents the possibility of deterioration. That teas of all kinds are subject to deterioration is well known to every one who has handled them, and it is certainly true that, when packed in small packages, this danger is minimized. Deterioration is, however, so easily prevented that, should it take place to any extent within the limits of a tea-season, the retailer has no one to blame but himself. Exposure to the air is the main cause of deterioration and it is such a simple matter to prevent this that it can be called nothing but carelessness should a chest of tea lose its flavor or strength while in the hands of a retailer.

Open teas should be placed in a retailing canister, or caddy, which is as nearly air-tight as possible and, in the event of the canister being too small to hold a full chest, the remainder of the tea should be carefully covered in the original box with the lead lining, and stored away in that part of the store which has the most even temperature; care being taken that it is far enough away from fish-barrels, soap-boxes, or from any goods which are odorous, for tea will very readily absorb flavors from the surrounding atmosphere.

The above are the main reasons given by the wholesaler in favor of the system, and it will be seen that these arguments have no great weight in fact.

On the other hand very much more can be said in favor of handling bulk teas as against the package teas of others, provided that the retailer has his future trade and profits in view and is not influenced by the easier method of handling packages.

In the first place the *object* of the wholesaler should be seriously considered, for herein lies the greatest, and, in fact, the only real objection to package teas.

A package tea with an easily recognised trade mark and brand, or name, engraved upon its face, is placed upon the market. Much advertising is done in newspapers, on sign boards, by circulars and free sampling. The quality of the tea within the package is such as to fully warrant a good and growing demand as the result of good advertising. The consumer calls for the tea by its particular brand, becomes accustomed to, and likes, its flavor, and is more than satisfied in every way with its quality, and the ultimate outcome is that the dealer is *compelled* to keep it in stock; *forced* to buy it from the wholesaler, however much he may dislike to do so, and thus the packer's object is attained. The demand grows; every retailer carries the brand; it spreads from town to town; from county to county and eventually covers the entire district

or State, and, in the end, becomes as staple an article in the community as granulated sugar. When this becomes the case—and we have seen it happen—competition is throttled and the retailer finds himself in no position to protect himself by purchasing teas from wholesalers who could do much better for him, on an equal grade, in the matter of price. Then comes the cut-price retailer with his reduction in the retailing price of the brand, and, in consequence, the dealer, who wishes to do a legitimate business, finds that he cannot drop the brand, is compelled to meet the cut price, or lose trade, and the ultimate result is that the retailers of the district where the brand is in demand will find themselves in that position where their tea-profits are no greater than their profits on ordinary staples. Thus the retailer forfeits his independence as a tea-buyer, and becomes the mere employe of the owner of the brand; his profit-getter, in fact; subject to his will and pleasure in the matter of the price to be paid for the tea, and in the quantity to be purchased.

In the second place the increased cost of teas packed in small packages should be considered. It costs from three to four cents per pound to pack teas in one-pound tins, and the smaller the package the greater the cost per pound. It costs from one to two cents per pound to pack teas in one-pound paper packages, or pasteboard cartons, and the cost of packing in smaller sizes is proportionately greater. In addition to the cost of packing, the greater weight to pay first-class freight rates on must be taken into consideration, and, from these figures, it can readily be seen that there cannot be much difference in the loss either way, whether an ounce to the pound is lost in giving down weight in weighing out bulk teas, or in paying the extra cost of packing in small packages and the extra freight on the package itself.

It has been shown that no material advantage is to be gained by handling package teas, and it has, also, been shown

that there is a grave danger in introducing a brand of package tea owned and controlled by another; still it should be said that the great convenience of the package must not be overlooked. It certainly is true that it is very convenient to be able to hand out a package which needs neither weighing out nor wrapping and tying up, and this consideration is the one and only advantage which a package tea has over bulk.

Admitting this, and still bearing in mind the danger which should, by all means, be avoided, and should convenience outweigh other considerations, it would be the wisest policy for the retailer to choose his own brand; have his own name upon the packages, or tins, instead of that of the wholesaler; protect it by registration and then he, instead of an outsider, would reap the resulting benefit.

CHAPTER IX.

HOW TO ESTABLISH A TEA TRADE.

It is not the intention in this chapter to enter into a lengthy discussion of the merits or demerits of the various methods of advertising, for problems of this nature are so fully governed by local and other conditions and advantages that little good could be derived from such a discussion, even were the subject to be thoroughly canvassed. It is, however, the intention to discuss the subject of *tea itself in its relations to advertising of any and all kinds*, for without a knowledge of the relations referred to a good foundation for any kind of advertising is impossible, and but little, if any, good could be expected from newspaper advertising, circulars, pamphlets, dodgers, or other printed advertisements.

To successfully build up a permanent tea-business, advertising of some kind is absolutely necessary. Without advertising, or "*push*," a retailer can never expect to make material improvement in his tea-business and, even with teas in stock which may be infinitely superior to those carried by his competitors, without a means of making the fact known, he will continue, year after year, to do a small business in teas, confined, more than likely, to his regular customers, or to those who will naturally trade with him; while with energy and push, and *with a knowledge of the channels into which to direct this push*, he will find that he can draw a tea-trade to his store from sources entirely unexpected and unknown.

In the first place, therefore, it is necessary for the retailer who wishes to push his tea-business to gain that knowledge which will give him a solid foundation upon which to build,

and with this knowledge gained, he will, at once, find himself in a position to advertise his tea department *in any manner that he may deem best*, and to take advantage of any condition that may exist, or arise at any time, with a reasonable assurance that whatever advertising he indulges in will bring satisfactory results!

On the other hand, advertising, even if it be of the highest order and most expensive kind, if built upon a faulty foundation, cannot do the good or bring the returns expected of it, and herein we will find the cause of so much failure in the attempted building up of a business, when the failure is attributed by the advertiser to the medium of advertising, or to some cause other than the correct one.

From the foregoing remarks it must not be understood that any particular kind of advertising is advocated, nor, on the other hand, must it be inferred that advertising, by any legitimate means, is discouraged. To let the people know *in some way* is absolutely essential to success, but the method or methods of doing it must be left to the discretion of individual cases.

The first important item which it will be well to call attention to in the connection is that one which relates to the healthfulness or unhealthfulness of tea as a beverage, for it is all important that the retailer should have a thorough knowledge and understanding of this interesting subject; and, as he cannot but become convinced, upon examination, that the feeling which exists in many quarters against the use of tea as a beverage is prejudice, purely and simply and without foundation in truth or in reason, this knowledge will serve to overcome the natural dubiousness occasioned by prior honest convictions, and engender a greater vim in pushing tea as an article of consumption, for a study of the subject will prove that the drink is not only healthful, but infinitely superior



Photo From Life by Mr. Alfred Acelsdorfer.

NATIVE TEA ROLLING IN JAPAN.

See page 127.

as a health-giver to the vast majority of beverages which are in daily use by the human family.

From the date of the introduction of tea to the present time, physicians, writers and others have disagreed upon the subject of the healthfulness of tea. Today, if asked for an opinion, a great number of medical men would condemn the practice of tea-drinking, and yet, if asked to give a reason for such a general condemnation, it is, perhaps, safe to assert that not one in a thousand could give one that would bear the slightest investigation. This prejudice against the use of tea as a beverage has been handed down through the generations and, without doubt, has been simply taken for granted by those who are opposed to the practice, and it is really time that such an absurd and unwarrantable belief, like many other unreasonable notions of the old school, was exploded.

Inasmuch as it is the intention in this book to consider the subject of commercial tea only, and to examine the various tea-problems with which the retailer has to contend, it would be a serious digression, and one which was never intended, to enter into a lengthy discussion of the subject of the healthfulness of tea, but, in this connection, the reader, who is anxious to give the matter especial study, is respectfully referred to the works of those authorities who have given the chemistry of the tea-leaf a thorough investigation; works which may be found in any library.

A perusal of the pages of the works of many eminent chemists will prove that tea, *when correctly made and properly used*, is not harmful to the human system, but, on the contrary, the preponderance of evidence goes to show that it is beneficial as a beverage and of considerable value as a human food.

It may, therefore, be taken for granted, by those who do not wish to investigate further, that tea is a healthful beverage, and, in this knowledge, the retailer will find one valuable

aid in building up his tea-business. Arguments and proofs to this effect may be embodied in advertising matter; may be used, verbally, over the counter whenever the opportunity affords, and not only will it have its effect, but it will go far to prove that the retailer has made a study of the subject, and knows whereof he speaks. Vast numbers of people who really like tea do not use it for the reason that it is so frequently condemned as injurious. Many people of this belief would make easy converts. Vast numbers, also, are slowly injuring their health by the use of the many noxious, and really harmful and absurd decoctions which are extensively advertised as "health drinks" or as tea and coffee substitutes. If tea were proved to be healthful, how many of these would use it in preference to the insipid beverages mentioned? And those who use it habitually, notwithstanding their belief in its harmfulness, would be more than pleased to discover that their belief was without foundation. And last, but not least, it may be said, without fear of contradiction, that the merchant who undertakes to combat such an erroneous public opinion will certainly be looked upon as one who possesses superior knowledge, and this to the betterment of his trade and store.

Tea, to be healthful, however, *must be properly made*, and a knowledge of how to do this will be found to be another valuable aid in the building up of a tea-business. The improper methods of making tea, which are, unfortunately, in quite general use in the United States, are mainly, if not entirely, responsible for the belief in the unhealthfulness of the beverage. This being the case it is really essential that the dealer should possess a knowledge of the proper method of making, or, more correctly speaking, brewing tea, in order that he may be able to impart this knowledge to the consumer. In doing this he will not only aid himself materially, but will

teach his customers to make a beverage so healthful and delicious that an ever increasing demand will result.

Without going deeply into the chemistry of the tea-leaf it will be sufficient for all practical purposes to touch lightly upon the action of its three main active principles, which are known to chemists as *Theine*, *Essential Oil* and *Tannin* or *Tannic Acid*.

In the proper preparation of an infusion of tea the two former principles are extracted by the hot water, for reasons given hereafter, to the exclusion of as much as possible of the *Tannin*.

Theine,—sometimes pronounced Tay-een; correctly pronounced Tay-in—the alkaloid of tea, is that principle which imparts to the infusion its wholesomeness and refreshing qualities.

Dr. Williams, when a professor of Yale College in 1883, has the following to say about it.*

“Theine has no smell and a slightly bitter taste, and does not, therefore, attract us to drink the infusion; but chemists tell us that it contains nearly thirty per cent. of nitrogen. The salts of other beverages, as coffee and cocoa, likewise contain much nitrogen, and all tend to repair the waste going on in the human system, reduce the amount of solid food necessary, diminish, too, the wear and tear of the body and consequent lassitude of the mind, and maintain the vigor of both upon a smaller amount of food. Tea does this more pleasantly, perhaps, than any of the others; but it does more than they for old people in supplementing the impaired powers of digestion, and helping them to maintain their flesh and uphold the system in health longer than they otherwise would.”

Dr. Liebig, the eminent German chemist, in his “Animal Chemistry” says: “If an infusion of tea contain no more than the one-tenth of a grain of *theine*, still, if it contribute in point

*“The Middle Kingdom,” by S. Wells Williams, LL. D.

of fact to the formation of bile, the action even of such a quantity cannot be looked upon as a nullity.

“Without entering minutely into the medicinal action of *theine* it will surely appear a most striking fact, even if we chose to deny its influence on the process of secretion, that this substance with the action of oxygen and the elements of water can yield *taurine*, the nitrogenised compound peculiar to bile. Thus we may say of these nitrogenised compounds, *caffeine* or *theine*, that they are food for the liver since they contain the elements by the presence of which that organ is enabled to perform its functions.”

The *Essential* or *Volatile Oil of Tea* is that principle of the leaf which imparts the flavory aroma to the infusion and strength to the liquor. The quantity contained in an ordinary brew of tea is so small that but little need be said as to its effect upon the human system.

Albert B. Prescott, Professor of Organic and Applied Chemistry in the University of Michigan, in his article upon “The Chemistry of Coffee and Tea” 1882, says: “The fragrant principle of tea, the essential oil, has not been separated in notable quantities, but it is recognized as a diffusible stimulant, transient and harmless in its effect on the system, and certainly attracting no little favor to the tea-cup.”

It is claimed by some chemists that the *Essential Oil of tea* acts in such a way upon the human system that nervous troubles and insomnia result, but, if we may be permitted to judge by the effects of tea-drinking upon the races of the earth who use tea the most—and we know that tea cannot be made without extracting the volatile oil—then it will be perfectly safe to assume that the oil of tea is, at least, harmless. Who can make the claim that the Chinese and Japanese are a nervous race? Are we not accustomed to look upon these, and upon the English, Irish, Scottish and Russian races as the most stolid and healthy upon the face of the globe? These peoples are not

troubled, to any extent, with nervousness or insomnia, and yet they are the greatest consumers of tea in the world!

Tannin.—The effect of this constituent part of the tea-leaf upon the animal economy is known to be deleterious. It imparts to the *improperly made* liquid a bitter astringency which cannot be otherwise than harmful. It is present in the tea-leaf in large quantities, and it is to this principle that the beverage owes its unpopularity in many quarters.

Professor Prescott says: "In tea the proportion (of tannin) is large, ranging, according to the lowest statements, from 9 per cent. to 12 per cent. and placed by some authorities as high as 30 per cent. to 40 per cent. *But it is important to know that only a small part of this tannin is extracted from the leaf in the suitable preparation of the beverage.* Some experiments with tea as it is prepared for the table gave, for a five fluid ounce cup of the liquid, in ten instances an average content of a trifle over one grain of tannin. Other experiments with tea, after five minutes' steeping, gave, in twelve instances, an average of tannin equal to only 8-100 per cent. of the dry leaf. In another case, by *thirty minutes* active boiling, so much tannin as 11½ per cent. of the tea-leaf was obtained in solution."

From the above brief descriptions of the main active principles of the tea-leaf it will be readily understood that the only proper method of brewing tea is that one which will draw out the two beneficial principles, *Theine* and the *Essential Oil*, from the leaves and allow as much as possible of the *Tannin* to remain therein. Happily this is not at all difficult to accomplish, for inasmuch as the *Theine* and *Essential Oil* are very much more soluble in boiling water than the *Tannin*, a little care is all that is necessary in order to produce a good and healthful drink.

The following method of brewing tea, if carefully fol-

lowed—and it is just as easy to do it carefully as otherwise—will produce, at all times, a wholesome, delicious beverage.

RULES FOR BREWING TEA.

1st. Use nothing but *freshly* boiled water.

2nd. Use *two* common earthenware tea-pots, both of which must be perfectly clean and heated either on the stove or by the use of hot water and dried.

3rd. Use one large tea-spoonful of tea-leaves to every half-pint of boiling water. The quantity used may be increased or decreased according to strength desired.

4th. Place the required quantity of tea-leaves in one of the tea-pots, then pour the desired quantity of boiling water over the leaves. Place the tea-pot cover quickly in place in order to prevent the escape of the aroma. Then set the tea-pot at the back of the stove, where it will keep as closely as possible to the original temperature of the water. *Never, under any circumstances, allow the water to boil after having been poured over the tea-leaves.* Allow the pot to remain for from five to six minutes, if the tea is of a black variety, and from eight to ten minutes if Japan or China green tea is used.

5th. After the required time for infusion has elapsed, pour the liquid into the second pot, using a tea-pot spout-strainer so that none of the leaves will escape from the first into the second pot. In making this transfer of the infusion from one pot to the other care should be taken to see that the second pot has been previously heated.

6th. The tea-pot is now ready for the table and the tea should be served as quickly as possible. The use of the English tea-cozy will be found to be of great advantage in keeping the tea-pot and its contents hot while on the table. A cozy is made in the shape of a cover for the entire pot and looks like an old-fashioned cocked hat. It is made of decorated goods with

a cloth lining and between the goods and lining is placed a very considerable thickness of cotton batting. Such a covering for the tea-pot will aid in retaining the heat for a long time.

In explanation of the above rules a few remarks are necessary.

Freshly boiled water, or water that has been at the boiling point not to exceed a few minutes, is really necessary in order to procure the best results. If water that has been boiled for some time, or that which has been re-boiled, is used, the life of the water is entirely gone from it, and the tea, made from such water, will be flat and insipid; lacking in that life which is necessary.

Earthenware tea-pots are much better than metal pots of any kind, for the reason that they can be kept cleaner and are not liable to impart a metallic flavor to the infusion. The Chinese and Japanese, who are very familiar with the subject, invariably use earthenware pots and tea-cups. The idea of using two pots is a good one, for the reason that, after the infusion has been poured off the leaves into the second pot, *all danger of extracting tannin from the leaves is obviated*, and the last cup of tea in the second pot will be as good as the first, which could not be the case if the infusion were to remain upon the tea-leaves in the first pot.

Allowing the liquid to boil upon the stove, that is, after having been poured over the leaves, will produce a decoction instead of an infusion of tea, and the result will be an acrid, astringent, puckery liquid, heavily impregnated with tannin, and quite unfit for use.

Black teas, particularly Assams, Ceylons and Indio-Ceylon blends contain a much greater percentage of tannin than Japans and China greens, and, for this reason, they should not be allowed to infuse longer than six minutes; while Japans, Ooloongs and Green teas, owing to their lesser percentage of tannin, may be infused for the longer period of from eight to

ten minutes. In altitudes of five thousand feet, or thereabouts, above sea-level, teas will take a little longer to infuse, owing to the decreased quantity of oxygen in the atmosphere, but a little practice will quickly demonstrate the requisite length of time necessary for perfect infusion in these high altitudes. For the same reason the water should be allowed to boil for some minutes longer in high altitudes before pouring it over the tea-leaves.

The next item that it will be well to mention, as a connecting link in the chain of aids in the building up of a tea-trade, is *the cheapness of tea as a beverage*.

A pound of tea that is worth the money paid for it—one, for instance, that will allow the dealer a reasonable margin of profit when retailed at 50c, 75c or \$1 per lb.—will return to the consumer from 200 to 250 ordinary cups of the beverage; and it will be a beverage that is full-bodied, pleasing and healthful.

Cheap teas are dear at any price; the consumer will find them so, and so will the dealer.

Goods that retail, ordinarily, at from 25 cents to 35 cents per lb., will produce from 120 to 175 cups, at most, of a beverage that is undesirable in every particular; thin, lifeless, and without flavor.

These figures show that the beverage made from the higher grade teas—75c and \$1 at retail—costs less than a half-cent per cup, and that that of the medium grades—50c and 60c teas—costs less than a quarter-cent per cup; whereas a beverage made from cheap tea—25c to 35c teas at retail—costs as much per cup as that of the medium grades.

The figures are interesting, also, in that they prove that tea produces a drink, even if the most costly kinds are used, that is infinitely cheaper as a beverage than others of the kind, such as coffee, chocolate, cocoa, cereal drinks—arguments of

the makers of the latter to the contrary notwithstanding—etc.

It is not often that arguments of the kind are used in favor of the drink, and it is safe to assert that few consumers ever attempt to figure out the cost per cup of their beverages, so that the embodiment of such figures and statements in advertisements can hardly fail to create consideration or attract attention, and so aid the dealer in his efforts to build up his tea-department.

The figures may, also, be used to good advantage in pushing and in creating a demand for better class teas. Many consumers that, for the sake of economy, are purchasing cheap teas, would be glad to learn that their economy is a false one, and these would not be slow to purchase better teas when it is shown to them that a 50c tea is just as cheap as a 30c one, as far as the number of cups to the pound is concerned; and that the better tea is infinitely cheaper if quality is taken into consideration.

Such items as the foregoing, if well put before the public, are bound to have the desired effect.

The next item which it will be well to investigate in connection with the subject on hand is *the tea itself; its kind and grade.*

A peculiarity of the retail tea-trade in the United States is to be found in the well defined sectional preferences for specific kinds of teas. These preferences are naturally created and regulated by the demands of the preponderant population. In strictly American communities Japans, Ooloongs and China green teas predominate, with a much heavier demand for the several kinds and grades of Japans. In communities populated largely by persons of English, Scotch, Irish or British-Colonial birth or extraction, black teas and black blends prevail. In the Southern States, China green teas are in the greater demand, while in the great Central and Western agri-

cultural States by far the heavier demand is for Sun-cured, Pan-fired and Basket-fired Japans.

In attempting to push his tea-trade the wise merchant will confine himself to the *kinds* which are in demand in his district, for it certainly would be a serious mistake to attempt to advertise or push a kind of tea to which the people are unaccustomed. A consumer of Japan tea can find no satisfaction in a black tea, even if the black tea be of a very much more costly grade than the Japan; and the consumer of a black, Oolong, or China green tea has the same objection to a Japan; so, for this reason, it is not wise to attempt to educate the taste of a community—it is hardly likely to pay. It may be possible, and even profitable, to introduce a Sun-cured, or Pan-fired Japan however, to a Basket-fired drinking community and *vice versa*, or to replace a Congou with an Indian or Ceylon, or the reverse, but to attempt to push a green tea where black teas are in demand would be worse than useless. A few consumers might be converted, but only a few, and there would be really no good reason for making the attempt as far as profit was concerned.

Before attempting to push a brand or grade of tea, it is very advisable to be absolutely sure on two points, and these are:—

1st. *To carefully choose the tea, or teas, upon which the effort is to be made, and*

2nd. *To be absolutely sure that the chosen tea, or teas, can be exactly replaced during the existing season, and matched as closely as possible during succeeding seasons.*

With regard to the choice of teas many important matters must be taken into consideration. *In the first place the tea chosen should be one that will retail at the popular price.*

It is not good policy to attempt to push a tea at a higher selling price than competitive merchants are getting, even if



NATIVES SORTING TEA IN JAPAN.

See page 126.

Photo From Life.

the tea is worth the difference, so that if the tea chosen is of greater value than that used by competitors, so much the better; it will pay, in the long run, to sell it at a competitive price.

In the second place the tea chosen must be suitable to the water of the district.

Without doubt the suitability of the tea to the water is the most important item in the matter of choosing a tea, and yet it is rarely that a thought is given to such a matter. It is a well known fact among tea-men that teas will draw very differently in different kinds of water, some teas being better suited to hard, and others to soft water. Pure, soft water, however, will invariably give the better result in the infusion, will show up a good tea to the best advantage, and, at the same time, it will prove up a poor tea that might pass muster in impure water. Pure water, inasmuch as it contains no mineral, can have no chemical action upon the leaves and it, therefore, has a much better chance to draw out the good or the bad qualities of a tea than a water that is impregnated with alkali, salts, iron, lime, gypsum or other foreign matter. High or medium grade, flavory teas that have no foreign or unnatural flavor, therefore, are much better suited to pure, soft water, and, if infused in hard or impure water, their sensitive flavor will, in a great measure, be destroyed. The harsher, highly-fired, highly-toasted teas are better for hard water, for they will endure the action of the chemicals held in solution to much better advantage.

It will readily be seen, from the above, that a hap-hazard method of buying teas is particularly dangerous and should, by all means, be avoided by the retailer who wishes to establish a permanent and growing tea-business. Teas which are suitable to the water are so easily obtainable that there is really no excuse for a dealer to make the mistake of handling those that are not. Any reputable wholesaler can supply teas suitable to the water of any district and, on demand, would

only be too glad to furnish samples, answer questions, and give advice; then with a little intelligent experimenting on the part of the retailer, which can be done at a very trifling or, perhaps, no expense; or better yet the submission of the procured samples to a tea-expert for examination and report, a very satisfactory result would be obtained.

The cost price of a suitable tea should not be the first consideration, for, to obtain just the tea that is needed, it is quite possible that the dealer will be compelled to pay a few cents per pound more than he has been accustomed to pay for a similar grade, although it is quite probable that the reverse may happen. In the long run it will pay the dealer to consider quality and suitability first, and cost afterwards, for wherein is the advantage if a few cents per pound are saved in the purchase and the tea prove a slow seller on account of its unsuitability? There are dealers who will argue that tea is tea, and that it ought to be suitable if the price is paid, and that it will sell anyway. This may be true, but many tea-drinkers will go to other stores to purchase a suitable tea, even if nothing else is purchased, so that the dealer who handles unsuitable teas is always in danger of losing a customer's tea-trade, if not his entire grocery trade through this one fault.

Teas, when graded in the Orient, or in the American market, are subject to certain qualifications which are contained within themselves. For instance: The grader values style at so much; flavor, so much; liquor, so much; body, so much; and the combined whole creates an intrinsic or, at least, a market value. Inasmuch, therefore, as each quality contained within the tea has been appraised and valued, it stands to reason that it must be paid for by the retailer, although he, owing to the quality of the water of his district, may pay for, and not obtain, one or several qualities. For instance, again: In valuing a tea, a clear, lustrous liquor in the cup has added several cents per pound to its value. It has, of course, been

tested by the grader in pure, soft water; and it may happen that the same tea, when drawn in the water of the retailer's district, will yield a much inferior liquor, caused, of course, by the impurities which the water contains. This, of course, is the fault of the water, and not of the tea; but if the tea is the tea which the dealer wants, he must pay for this intrinsic value which the tea possesses, but which he cannot obtain.

In districts where several or many kinds and grades of teas are in demand the same general rules with regard to a choice will hold good; but it would be a very wise procedure on the part of the retailer to choose the grade and kind which is in greater demand and, upon this particular kind and grade, to make his initial experiments and effort. The remaining kinds and grades will, naturally, follow in the order of their importance, and, eventually, the retailer will own a line of teas which will fully warrant and back up any or all efforts he may make, or methods he may deem advisable to employ, to let the people know.

It will be useless, however, to attempt to build up a tea trade on grades which *cannot be replaced*, so that, before a choice is made, the retailer will do very well to be very sure on this point. The better plan is to experiment with the standard brands of well known importers, for, in this case, the assistance of the importer will, naturally, be assured, for the reason that much care is exercised by importers in the yearly matching of their adopted standard brands.

The style of the tea to be chosen is the next important consideration.

The "style" of a tea is the term used by the trade to designate its general appearance as a whole. A stylish tea is one whose leaves are regular, well curled or rolled, and its color even and good. Teas of poor style are the reverse in appear-

ance, their leaves being irregular, ragged, flat, loosely rolled, twisted or curled, and of a dull color showing a lack of life. There are, of course, teas of good style, fair style, medium style and poor style.

While, in the choice of a tea, style must be considered, still it must, at all times, be a secondary consideration to cup qualities and suitability. A stylish tea does not always designate a tea of superior cup qualities, for it frequently happens that the maker of the tea has hurt its drinking qualities in his efforts to gain style, therefore it is always best, for any purpose, to test a stylish tea.

Assuming that the tea, or teas, have been chosen, the next point for consideration will be "*In what shape shall they be sold to the consumer?*" Inasmuch as the main idea is to create and to hold a demand for a certain tea, or teas, it becomes necessary to adopt some plan or system which will identify the goods in order that the consumers may be absolutely certain that they are getting the same goods from time to time. Nothing can be more effective for this purpose than a distinctive paper bag with the name of the retailer and his registered brand printed thereon. A half-pound or a pound of tea done up in an attractive package, neatly folded and tied, suggests more than ordinary care and pride in the article contained within, and the difference between such a method and the very common practice of sending out teas in ordinary Manila paper bags, frequently done up untidily, would be immediately noticed, and, in itself, would constitute a really good advertisement.

Silver or gold paper bags, although more costly, are the best for the purpose, and can be obtained from any paper house, printed to order. Tied up neatly with colored twine, the package, thus made up, presents a very business-like appearance, and suggests to the recipient that extraordinary care

has been used by the storekeeper in preserving the contents of the package, and, if extraordinary care has been taken, it necessarily suggests that the storekeeper knows that the tea is good.

Then again the brand upon the package is an advertisement of great value, and, if registered, as it certainly should be, it will, at all times, be not only an absolute protection against unscrupulous competition or imitation, but will become a very valuable asset for which the retailer can demand and obtain a good round sum should he, at any time, decide to sell out his business.

In establishing a trade-mark or registered brand it is best to use the name and the picture of some object of local prominence; the simpler and more easily remembered the better. When selected, any attorney-at-law will, for a few dollars, obtain the registration papers. It is not necessary to obtain registration at Washington, D. C., but, at the capital of the State in which the dealer does business. This means State protection only; United States protection must be obtained at Washington. A photograph or a sketch of the object sent to the paper house will enable that concern to have a cut made for printing purposes, and the expense is at an end.

With the paper bags once on hand, the entire contents of a chest of tea may be weighed out carefully and done up into half-pound and pound packages at the leisure of the dealer. This will not only prevent the possibility of giving down weight, but will give the necessary time to make a neater package, and will materially aid in preserving the tea from loss of flavor.

It has been intimated at the beginning of this chapter that the style or kind of advertising adopted must, for obvious reasons, be left to individual cases.

There is, however, one kind of advertising which never

fails to bring good returns and it will be well to discuss it, for it can be made to fit any or all cases, and the dealer who has placed himself in a position to do so as far as goods, etc., are concerned, is strongly advised to try it. The advertising referred to is the giving away of free samples.

In reality there is no advertising equal to judicious, systematic sampling, that is, provided that the owner of the advertised article *knows* that it is of exceptional value, and just right.

Sampling fails only when *meagerly* done. With a tea this would mean the giving away of an ounce or so to a prospective customer, and to do it in this way is simply a waste of money and time. Sampling, *when properly done*, and the goods are what they should be, *never fails to bring the very best percentage of returns*; and in advertising a tea the placing of a *one-pound package* into the hands of every prospective customer is *the only proper way* to do it in order to make sure of success. True it is costly, but it will do the work. It means thirty-five or forty-five dollars for each hundred packages so given out, but those thirty-five or forty-five dollars so expended will do three or four times the work of the same amount of money expended in printed advertising, if not a great deal more. The pound of tea will be respected by each recipient, for it is valuable; it may take each of them a month, or even longer, to use it up, but, during that period of consumption a large percentage of them will acquire a decided taste for the flavor of the tea, and the sampling has done its work and done it well. Then will begin a call for the brand; it will be talked about at the homes of consumers; at afternoon teas; at mother's meetings, and the retailer will then be able to congratulate himself upon having expended thirty-five or forty-five dollars to a very good advantage.

The attempt may be made slowly, and results carefully tallied. Half-a-hundred may be tried, and it is confidently

believed that the result will warrant a continuation of the plan.

It is simply throwing money away to sample gingerly. It looks mean to present a prospective customer with a tiny sample done up in a tiny envelope, suitable only for a single drawing. Many will never think to try such a sample, and those who do try it cannot have a chance to give the goods a fair trial from such a small quantity. Therefore, if a merchant undertakes to advertise his brand of tea by sampling, let him do it liberally, or not at all.

In conjunction with judicious sampling a neat, short circular wrapped around the package of tea will be read by the majority. People like to get something for nothing and really prize it a great deal more than if they had paid for it. Under the circumstances they will surely read whatever is given to them for this purpose, so that a circular dissertating upon the healthfulness of tea; followed by rules for making tea properly, and a statement proving the comparative cheapness of tea as a beverage, for instance, will add strength to the advertisement, and in the wording of the circular the retailer can take every advantage which may present itself to call attention to the quality, etc., of the particular brand of tea he is advertising.

A small beginning along these lines will demonstrate the advantages to be derived from such a method of building up a tea-trade, and it can be followed up quickly by greater efforts according to the measure of success.

Demonstration, that is, serving the beverage, without charge, in the store, is a fairly good way of advertising when it can be properly managed. It is costly in many ways, but it usually yields a fair measure of success. The difficulties in the way of successfully advertising in this manner, however,

are greater with tea than with other beverages, but with a little foresight and care such difficulties can be easily overcome. It is not easy to keep the infusion of tea in such a condition as will do it justice, or will correctly represent its true quality, and it is impossible, on account of the time it takes, to make a fresh pot of tea for each individual who is willing to try it. A large urn cannot be used to advantage, for long before the contents are exhausted the infusion will have deteriorated considerably, and to serve it in such a condition will do more harm than good. The better plan to adopt is to use two medium or large sized tea-pots; make the infusion in one, according to rule; and pour it into the other and keep the liquid hot in the second pot under an English tea-cozy if possible. It will, however, be necessary to make the infusion fresh at short intervals.

The greatest difficulty in demonstrating is to obtain a lady-clerk who is, at once, able to make good tea, and capable of talking it up and making sales while serving the drink. For this kind of work it is not good policy to employ one who is well known to prospective customers, for the reason that her talk will have little or no effect. Store customers will try the tea, of course, and will doubtless listen to what the demonstrator has to say, but they will realize, from their past knowledge of the lady, that she knows but little, if anything, more about the subject than they do themselves. A perfect stranger always carries more weight, a great deal more weight, in fact, and it is, therefore, very advisable to employ such an one for the work.

In connection with the demonstration plan a tastefully arranged little booth made up after an Oriental design in point of appearance and coloring, with dainty cups, spoons and table linen, would prove very effective. It is not costly to attire the attendant in flowing Oriental costume, and this will add very materially to the effectiveness of the idea. Within

the booth, or within easy reach of it, hot water, towels, extra cups, saucers and spoons should be placed, while upon the counter of the booth, and within easy sight, a number of the packages of the advertised tea should be piled up. It is best to have the demonstrator adopt a system of keeping track of her daily sales so that it may be known if the demonstration is paying or not, and the retailer will do well to note that the booth, the demonstrator and the materials used are, at all times, clean, neat and tidily arranged.

Demonstrating in stores has proved itself to be a profitable and effective method of advertising, and although the idea has not been extensively adopted as a means for pushing tea-sales, there is no good reason why it should not be as effective as it has proved to be in the introduction of cocoa, coffee and other commodities. It might be advantageous to adopt the system in conjunction with sampling, that is, to use one idea and, later on, the other.

It is, however, safe to assert that the sampling method will prove to be the more effective one if judiciously and properly carried out, and, although it may prove to be more costly, it will not fail to bring the greatest measure of returns.

Outside advertising of any nature must be fully backed up by an inside display in keeping, if possible, with the nature of the advertisement.

To display a line of teas to advantage nothing is equal to a handsome show of well-made, full-sized half-chest tea-canisters. It is not easy to make a display of the goods themselves, for open teas quickly gather dust and lose their brightness and freshness if exposed to the air, and it appears to be impossible to make them look well under glass. A full line of good canisters suggests good tea; suggests care in keeping and handling; and suggests pride in the line. In order to make the most of a display of tea-canisters it is very necessary

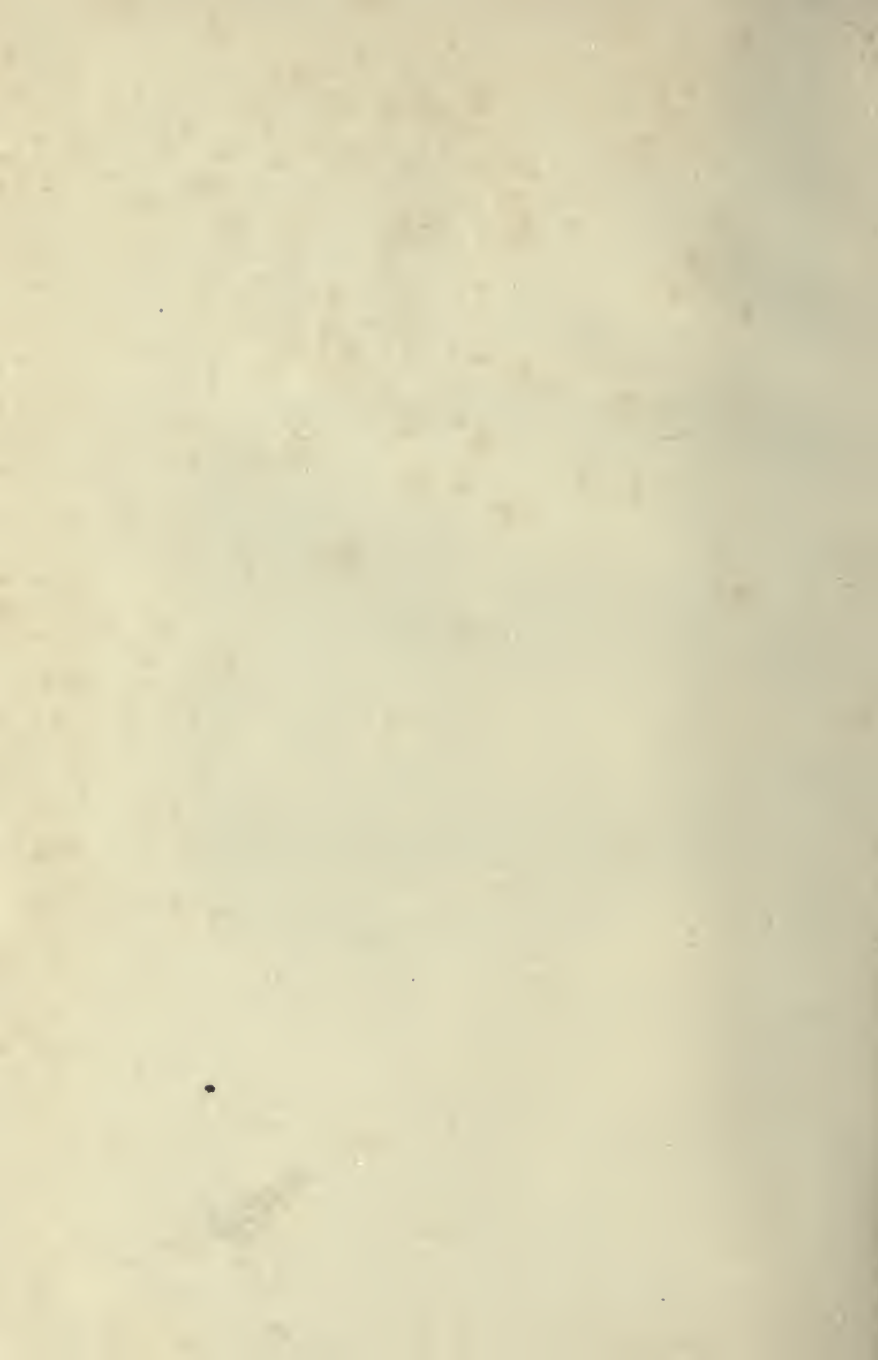
that they be placed in a conspicuous position, as close to the entrance of the store as possible. Tea is a very profitable article, and its store display should, under all circumstances, be placed where customers will pass it upon entering and upon leaving the store. It is useless to attempt to advertise teas if the goods are to be kept in chests or boxes under the counter, in diminutive caddies, or at the back end of the store.

Top-delivery, or slide-top, weighted-lid, decorated tin-canisters are the best for the purpose, for they can be made more showy and more suggestive of tea than bins or caddies made of wood or other material. A handsome display of a number of large decorated tea-canisters made to fit snugly in the shelving, or placed in any suitable position near the entrance of the store will attract immediate attention as a customer enters, and be, in itself, an advertisement of great value. It is the habit of a great many tea-wholesalers to present their customers with tea-canisters or -cabinets for retailing purposes, but, in most instances, these receptacles are lettered with the advertisement of the wholesaler. In the building up of a tea-trade the advertising of a brand of tea owned by another is not calculated to insure permanence, for the owner of the brand may go out of business or sell his brand to a competitor or competitors and, in either case, past advertising of the brand will be lost. It is strongly advisable, therefore, for the dealer to have his retailing canisters or cabinet made to order; made to fit his shelving or selected space, and to have his own name and brand painted on each. Such canisters may be obtained from any first class tin-ware factory in suitable size and design.

In the event of advertising being done by means of pound-package sampling it would be well to keep the canisters filled with half-pound and pound-packages, and to arrange a neat display of the packages upon the counter in front of the canisters. Such a method of outside and inside advertising can-



A TEA CANISTER THAT IS A TEA CANISTER.



not be otherwise than successful and, although it may be somewhat costly, it will be found to be extremely profitable in the end.

A window display of tea is difficult, and cannot be advocated as a good means of advertising unless the store happens to be located upon a prominent street in a fairly large city.

To display teas in a show-window the utmost care must be exercised in keeping the samples free from dust and sunlight, otherwise their lustre and freshness will be quickly destroyed. It is better to make a small, neat show of empty tea-packages in a window than to display a number of samples of teas, but if the latter kind of advertising is attempted, the samples must be changed every few days in order to keep them fresh looking and attractive.

In a window display of teas it is well to name the kinds upon a neat card, and label each sample with its price per lb., for teas exhibited in a show window, without name or price, will attract no attention. Surround the samples with anything Oriental; anything suggestive of the beverage or its origin; tea-pots, tea-cups, empty original packages of various sizes neatly done up again, showing the labels; pictures of Japanese or other Oriental scenes, tea-picking and otherwise; banners, etc.

Teas that have been exposed in a show-window should never be offered for sale for what they were before the exposure; but should, if sold at all, be offered for what they are, and at a correspondingly low price. If exposed for a few days only they will have lost their original good qualities and, if sold in such a condition, will do much to harm the brand.

A really good tea, suitable to the water of the district in which it is to be sold, may, in time, advertise itself if the

dealer is content to depend upon such an uncertain method of building up his trade, but it is better to adopt some system of letting the people know, for, in building up a tea-trade it will naturally follow that the regular store trade will benefit accordingly. Tea is a specialty, and a very profitable specialty at that, and it is, therefore, one of the very best articles kept in a modern grocery stock to advertise, for as soon as consumers discover the fact that a really fine tea is procurable at a certain store, they will not be slow in transferring their entire grocery trade to that store, for, they will argue, if the tea is so much better than usually procurable, other goods are likely to be so too.

In conclusion it may be safely stated that the dealer who first places himself in a position to fully understand what he is doing, and to know that he can back up, in every respect, all that he may say to the public about his teas, will win trade from the one who refuses to use printer's ink or advertise in other ways; but in order that the new trade may be held and increased, care must be, at all times, exercised in the selection of the goods, and in the way that they are placed upon the market. With these original precautions continuously in view, and with a judicious system of letting the people know, results will be attained that will be surprising, and that will amply repay all expense and trouble.

The value of a first class blend of teas, as a means whereby a profitable and lasting tea-trade may be built up, is unquestionably good. Its importance to the retail trade, however, suggests the advisability of devoting a special chapter to it, to which those interested are respectfully referred.

CHAPTER X.

TEA BLENDING.

Were it not for the many and serious difficulties which the retail dealer of this country will meet with in producing an uniform blend of tea; a blend which will be satisfactory at all times; the idea would be strenuously advocated as a means whereby a tea-trade could be built up; but, inasmuch as these difficulties do exist, and in view of the fact that it is hardly possible to advise or to show means whereby they may be satisfactorily overcome in individual cases, an advocacy of a system of blended teas will be attempted only as given hereafter.

The mixture of two or more grades or varieties of teas to create a blend is difficult for several reasons. To begin with the grades and kinds necessary to keep it uniform, in style as well as in drink, are not easily selected; proportions of each of the kinds and grades are not easily arrived at, and, when a satisfactory blend is established, it will be found that the ingredient grades and kinds are not always procurable. The substitution or the matching of kinds and grades for those which are temporarily or permanently unprocurable is, again, a difficult matter for a novice to master, for to do this, intelligently and satisfactorily, knowledge is necessary, and such a knowledge comes only with practical experience. Were it, however, within the power of the retailer to do so, and it is by no means an impossible undertaking, the placing of a carefully prepared blend of tea upon his market would result in outstripping competition, provided, of course, that the retailer, in his blend, is able, or fortunate enough, to capture the popular fancy and taste.

Under the circumstances, and in spite of the difficulties

in the way, a study of the subject is advocated, for it will not only be found to be particularly interesting, but it will aid the student in his attempt to understand teas, and, should he succeed, it would certainly inure to his material advantage, so, for these reasons, the following remarks upon the subject may be of benefit.

The blending of teas is by no means, as most retailers know, a new idea. The blending of coffees, wines, etc., has been a known science for many generations, and the results attained by a happy combination of several kinds and grades of the above-mentioned articles, as well as of teas, have been beneficial to the beverages. In Great Britain few teas are sold to consumers now-a-days that are not blended either before or after reaching the hands of retailers, but, in that country, both journeymen and master grocers have served an apprenticeship to the trade, and the scientific and economic blending of teas has, therefore, been a part of their business education.

The idea of blending, or mixing two or several teas together is, at once, to produce a beverage that will be agreeable to the taste; gratifying to the appetite; satisfactory to the consumer; less costly, if possible, to the retailer and, more important yet, if the above objects have been attained, *distinctive in general drinking characteristics*. There can be no question as to the outcome for the retailer in the placing of such a tea upon his market. It will give satisfaction; it cannot be readily matched and, in consequence, competition cannot affect it.

The belief which is general throughout the United States that teas are blended *solely* for the purpose of reducing cost is without the shadow of a foundation in fact. This is sometimes the case where two or three different grades of *the same kind of teas* are blended, but such a procedure is not often attempted by wholesalers, and for a retailer to do so would, in most cases, be very unwise, if not risky, for he would run as

great, if not a greater, chance of loss of grade as he would of gain, for there is a greater danger of the lower grades imparting roughness or harshness to the whole than there is of the finer grades imparting their better flavor.

Teas of different kinds are blended for the purpose of producing results in the drink which cannot otherwise be obtained, and should it be possible, as it frequently is, of obtaining a more satisfactory tea at a lesser cost, then a double object has been attained. The combination of the several flavors of the different kinds of teas which constitute a well selected or a happy blend, unite, and, in their union, produce pleasing effects. One of the grades or kinds, we will say, possesses delicate flavor in a marked degree; another good body; a third, aroma; a fourth strength, then the combined whole, if not interfered with by an injudiciously selected ingredient, will create a blend which will produce a drink that will have flavor, body, aroma and strength in correct and happy proportions. In such a case the qualities of each will back the others up, so to speak, and the union of all, *after assimilation*, will give a combination that will be distinctive, and yet, if carefully selected with the taste of the community in mind, not sufficiently so to be called some other kind of tea.

The main object for the retailer to keep in view in tea-mixing is to produce a tea that will please the greatest number of people; and, in order to do this, *radical changes of appearance, flavor, and strength must be avoided*, and a blend of teas chosen that will combine the expected drinking qualities and, at the same time, create and cause to stand out prominently in the drink, a particular flavor, distinctive, and yet akin to the accustomed one.

To attempt to push a blend of tea composed of sufficient black varieties to make the taste of the black kinds the more pronounced, in a community accustomed to Chinese or Japanese green teas, would be folly, and, were the blend one which

might be called perfect, it would not give satisfaction. Blends, therefore, whether simple or complicated, must be made with the taste of the consumer in view, otherwise a failure may be looked for. In a community, for example, where the taste runs to Basket-Fired Japans, a mixture of an agreeable portion of a Moyune Gunpowder with the Basket-Fired will improve the drink without materially altering the Japan flavor, and yet the combination of the two teas will produce a beverage which cannot be obtained from either of the kinds if brewed alone, and, at the same time, the blend cannot be matched with either one of these kinds of tea.

In order to be able to perfect a blend and to obtain the result which is looked for, it is absolutely necessary to take into consideration certain general principles, which may be summed up as follows:

First—The retailer must have a perfect knowledge of the taste of his community and be guided thereby, and he must acquire a knowledge of the kinds of teas that will blend satisfactorily with the kinds in use and still allow the taste of the accustomed tea to predominate.

Second—He must be sufficiently familiar with the characteristics of his blend as a whole, and with the qualifications of every kind of tea contained within the blend, in order that, should occasion insist, he may be able to replace any unprocurable sort or sorts with other grades, or even kinds, without disarranging the characteristic features of his blend to any extent.

Third—He must be familiar with the effect of the water of his district upon all of the ingredients of his blend, and be able to avoid teas which are unsuited to it.

Fourth—It is important, in fact, imperative, that the highest grade of tea in the blend should predominate, so that

it may overcome the greater harshness or commonness of a lower or lower grades, and supply the character to the whole. In this connection it is wise to remember that coarseness of flavor is difficult to overcome, so that, if it is the object to reduce cost in order to make a price, the lower grades of the blend should be, as nearly as possible, neutral, that is, without well defined roughness, herbiness or other harsher characteristic of a commoner tea.

On the other hand lack of flavor or strength in the lower grade teas is also difficult to overcome, so that an old or a characterless tea of poor body, strength and flavor will very materially reduce the quality of the finer grade or grades and do so without giving anything in return.

Fifth—In the use of teas of lower grades, style must be considered. It will never do to combine several teas in a blend where the several styles are so far apart as to be distinctly noticeable. Rough appearing leaf should not be mixed with good looking leaf, for the rougher style, being larger, will overcome the good, and the general appearance will be poor, for the larger leaf of the commoner sorts, even if in much smaller proportion, will stand out prominently and impart a cheap appearance to the whole. Poorer grade teas in a blend should, therefore, be used judiciously with regard to leaf, and should be as nearly as possible of the same size as that of the better grades. Uniformity in general appearance will be, in this way, attained and will materially add to the value of the blend.

Sixth—It is not wise to blend a tea to order in the scale-scoop while a customer is waiting for it. It is very much better to blend up a fairly large lot and allow the mass to remain for several weeks before selling. As has been stated in another chapter, teas readily absorb the flavor of anything which is near to them, so that when a number of different

flavored teas are blended and given the opportunity and time to absorb the flavor of each other, the result will be a union of the various flavors in one flavor which will combine the characteristics of each; but it is not possible to obtain this result unless the necessary time is allowed. If the blended tea is sold immediately after blending the several flavors of the several kinds have had no time to unite, and the result is sure to be a different flavor or taste with each pot of tea made from the blend. In the making of the infusion of a freshly blended tea it is impossible for the maker of the blend to mix it so that the correct proportion of each ingredient kind will be taken or used by the consumer or the maker of the infusion for each pot, and, in such a case, one pot of tea will, in all probability, have a greater quantity of the leaves of one of the ingredient kinds, and this will naturally impart to the liquor the flavor of that ingredient in a pronounced degree. The next pot of tea made from the blend is very likely to have the pronounced flavor of some other ingredient, and such a dissimilarity of flavor in the brewings will cause dissatisfaction. In the commercial test of a freshly blended tea, it is, for the above reason, rarely found that two cups will have the same flavor, taste or liquor, so that, in order to arrive at a conclusion, or to have a perfect idea of the result of a blend, it is necessary to allow the mixture to stand for several weeks so that the flavors of each of the component parts may have the necessary time to unite.

Seventh—It is very important in mixing a blend that, after the proportion of each ingredient has been reached, care should be taken in weighing out the required quantities of each grade. Careless weighing, or guessing at quantities will invariably spoil an otherwise good blend. In such matters it pays to take the time necessary.

Eighth—It is just as important that the mass should

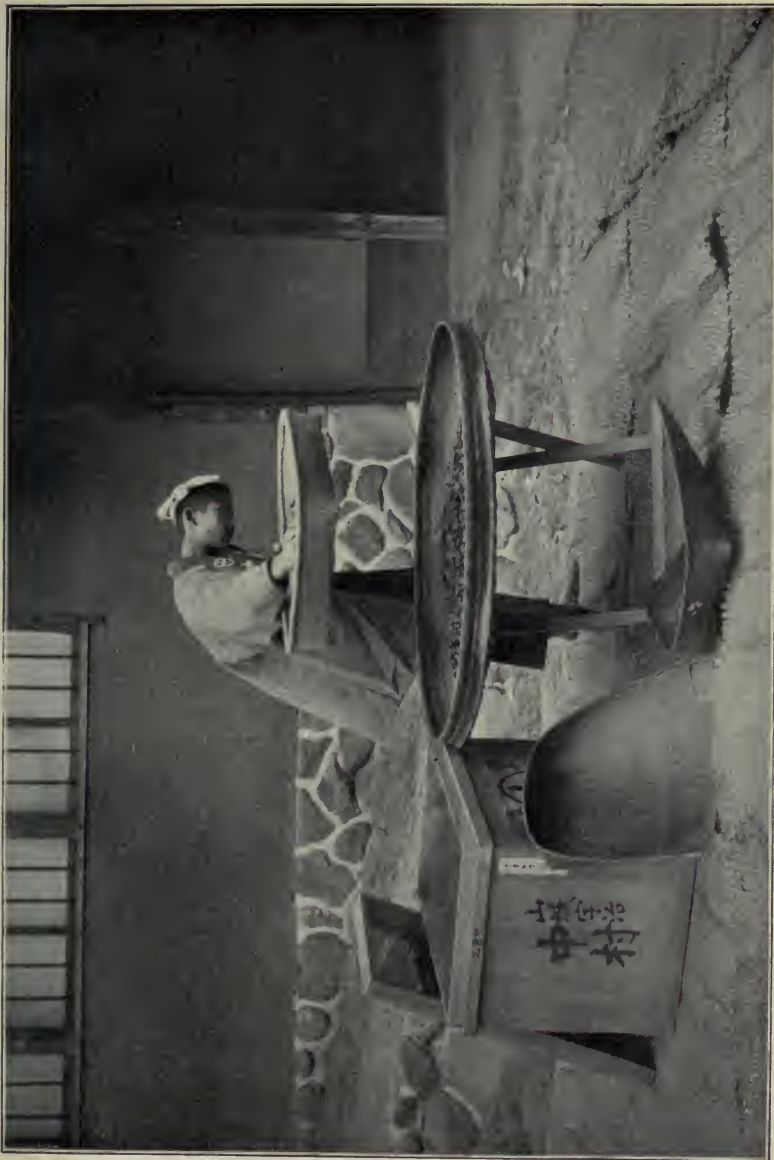


Photo From Life by Mr. Alfred Adelsdorfer.

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be thoroughly mixed. Hap-hazard or careless mixing will surely spoil the blend, and it would be very much better to have no blend at all rather than one which is not properly mixed. In Canada many retail merchants use a tea-mixer made of wood or metal, which, in appearance, is like a Hunter patent flour-sifter, but, of course, the sides and bottom are solid instead of perforated. The revolving wires have flanges attached so that a few revolutions thoroughly mixes the leaves. A mixer of this kind is decidedly better than mixing by hand or by the aid of a scoop.

Owing to the many and serious difficulties which the retailer is likely to encounter in making his own blends, and in keeping them uniform, it has not been deemed advisable to recommend the use of blended teas as a means whereby a trade may be established and held. Nevertheless the idea is too valuable as a trade-winner to pass without some effort being made to overcome these difficulties, so that in order to place the retailer in a position to adopt the plan if he desires to do so, the following advice is, in conclusion, offered.

Choose some reputable Wholesale Grocer, Tea Specialty House or tea-expert and make arrangements to have a suitable blend put up into packages or chests of a size to suit. Wholesale houses are generally in a position to get up satisfactory blends for their customers; are prepared to keep the grade and flavor uniform at all times, and are usually willing to undertake the work at a trifling charge above the cost of the ingredient bulk teas, the profit on the various teas used in the blend being ample remuneration. If the tea-department of the retailer's wholesale grocery house is consulted much good will result. The manager will, more than likely, be only too glad to undertake the work of getting up a good and satisfactory blend; will enquire into existing conditions as to popular taste, water of the district, etc., and, if the blending and pack-

ing is left to him at an agreed price, results, in the matter of trade-building, will be much greater than can be supposed.

By the adoption of such a policy the retail dealer will have the advantage, to begin with, of the tea-man's knowledge and ability; can order conservatively, in order to protect himself, until the suitability of the blend is assured, and, when a combination of teas has been secured that will give undoubted satisfaction, all that is necessary to win and hold trade with the blend is systematic and persistent push.

On the other hand should the retailer desire to experiment with blends for his own knowledge and ultimate profit, reference may safely be made to Mr. Walsh's exhaustive work upon the subject and to his numerous specimen blends.* With these, and a little patient practice, the retailer will ultimately obtain a satisfactory blend.

In either case, and with a good blend or blends obtained, the retailer will act very wisely if he packs the tea in neat retailing packages of suitable sizes and adopts some brand for protection against unscrupulous competition. A good brand on a package makes advertising much easier, and a good blend of tea within the package will back up any or all advertising the retailer undertakes.

Tea-blending as a science is mainly the result of the introduction of the heavy-bodied, pungent teas of India and Ceylon. Prior to the introduction of these, China teas in Great Britain were frequently blended to produce a more desirable or a more delicately flavored drink; a drink, for instance, combining the soft mellowness of a China black tea with the pleasing sharpness of a green, but, with the advent of India teas, blending for other purposes became imperative. It was impossible to quickly change the taste of consumers from the mild, flavory teas of China to the very much stronger, harsher and darker-liquoring ones of India, and, if a success

*"Tea Blending as a Fine Art," Joseph M. Walsh, 1896.

was to be made of the introduction of British grown teas in British countries, the taste of the communities for such must be educated slowly and gradually. With this end in view, India teas were blended with China blacks, the quantity of the former being gradually increased until a taste for their flavor was acquired by consumers, and the result desired by those interested in the consumption of British grown teas attained. Tea-blending, therefore, has become a common practice in Great Britain and her colonies during the last 20 to 30 years; so much so, indeed, that few teas are served to the public of those countries unblended. Once introduced, the system became general, for, owing to the fact that India and Ceylon teas vary considerably in flavor and strength with the monthly pluckings, it became necessary to blend other garden teas that were akin in flavor, etc., to the one in former use, in order to produce one uniform drink throughout the year and throughout succeeding years, and, as a result of this, the profession of the public tea-expert and blender of Great Britain has prospered.

By means of constant practice these expert tea-men are enabled to produce blends that are perfect; that are entirely suited to the water of the district in which the infusion is to be made by consumers, and that will be uniform in drink at all times, notwithstanding the fact that the teas from specified gardens are rarely uniform. Uniformity of drink is the result required at all times, and if such cannot be obtained by a union of two or three teas of different flavor, body and strength, more teas are added to the blend to equalize the drinking qualities, until a drink in every respect akin to that required is attained. In America, however, where no such conditions exist, tea-blending is not likely to become so general, and so long as the light-bodied, flavory teas of China and Japan, which really need no mixing, are used, the science of tea-blending is not likely to become of such importance as it is in Great Britain.



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